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Revitalizing Auto Communities Environmental Response Trust

2013 Corrective Measures Implementation Annual Report

Buick City (Formerly General Motors Corporation North American Operations Facility)

Flint, Michigan

August 2014

2013 Corrective Measures Implementation Annual Report

Buick City Site
Flint, Michigan



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Table of Contents

Acronyms and Abbreviations **vi**

1. Overview of Corrective Measures Implemented **1**

1.1 Introduction 1

1.2 Summary of 2013 Corrective Measures 2

2. Light Non-Aqueous Phase Liquid Investigation, Characterization, and Remediation **4**

2.1 Light Non-Aqueous Phase Liquid Investigation 4

2.2 Light Non-Aqueous Phase Liquid Characterization Activities 5

2.2.1 Natural Source Zone Depletion Study 5

2.2.2 Light Non-Aqueous Phase Liquid Transmissivity Study 5

2.2.3 Respirometry 6

2.3 Light Non-Aqueous Phase Liquid Remediation – AOI 09-B Operations and Maintenance 7

2.3.1 Summary of 2013 Operations 7

2.3.2 2013 System Performance 8

3. Groundwater Monitoring **10**

3.1 National Pollutant Discharge Elimination System Plus Monitoring Program 10

3.1.1 Summary of Results 11

3.1.1.1 Outfall 001 Results Evaluation 11

3.1.1.2 Outfall 002 Results Evaluation 11

3.1.1.3 Outfalls 003 and 004 Results Evaluation 11

3.1.1.4 Outfall 005 Results Evaluation 12

3.1.1.5 Outfall 006 Results Evaluation 12

3.1.1.6 Outfall 007 Results Evaluation 12

3.1.1.7 Outfall 009 Results Evaluation 13

3.1.1.8 Outfall 010 Results Evaluation 13

3.1.1.9 Outfall 011 Results Evaluation 14

3.1.1.10 Outfall 013 Results Evaluation 14

3.1.2 NPDES Plus Monitoring Program Data Evaluation 14

3.1.2.1 Evaluation of NPDES Plus Monitoring Program Data Pre- and Post-Demolition 15

3.1.2.2 Evaluation of Metals Exceedances at Remaining Outfalls 15

3.1.3 Requested Changes to the Monitoring Plan and Response Plan 16

3.2 Annual Groundwater Monitoring Program 17

3.2.1 Monitoring Network Inspection and Maintenance 17

3.2.2 Groundwater Level and Light Non-Aqueous Phase Liquid Presence Measurements 18

3.2.2.1 Groundwater Level and Flow Evaluation 18

3.2.2.2 Bulkheading 18

3.2.2.3 Light Non-Aqueous Phase Liquid Presence Evaluation 19

3.2.3 Groundwater Quality Monitoring Program 20

3.2.3.1 Data Evaluation 21

3.2.3.2 Summary of Results 23

3.2.3.3 Response Plan 30

4. Soil Corrective Measures 32

4.1 Off-Site Soil Excavation Activities 32

4.1.1 Summary of Field Activities 32

4.2 Select Surface Covers 33

4.2.1 Select Surface Cover Installation 33

4.2.2 Maintenance of Select Surface Covers 34

5. Storm Sewers 35

5.1 Storm Sewer Studies 35

5.1.1 Sewer Video Inspection 35

5.1.2 Outfall 004 Reroute Feasibility Study 35

5.2 Storm Sewer Bulkheading Activities 36

6. Non-Corrective Measures Implementation Activity Summary 38

6.1 Outfall Maintenance 38

6.2 Oil Interceptor #2 Maintenance 38

6.3 Outfall 003/004 Stormwater Diversion and Treatment System 39

6.4 RCRA Waste Management Unit Closures 39

6.5 Northern Parcel Soil Investigation 39

6.6 Former Factory 31 Basement Investigation 40

6.7 AOI 83/84-3 Lead Soil Delineation 41

6.8 Outfall 002 Passive Recovery Trench 41

7. References 43

Tables

1 Natural Source Zone Depletion – Northend Results

2 LNAPL Transmissivity Evaluation and Results

3 AOI 09-B System Vapor Phase and LNAPL End Point Tracking

4 Currently Approved NPMP Sampling Program and Rationale

5 2013 NPMP Analytical Results

6 NPMP Mercury Evaluation

7 June 2013 Groundwater and LNAPL Elevation Data Locations

8 2013 Groundwater Quality Monitoring Locations

9 Field Parameters of Monitoring Wells

10 June, September, and November 2013 Groundwater Sampling Results

11 2014 Proposed Groundwater Monitoring Plan

12 Off Site Soil Excavation – Benzo(a)pyrene Confirmation Samples

13 Off Site Soil Excavation – Lead Confirmation Samples

14 002 Passive Recovery Trench Monitoring Summary

Figures

1	Site Location Map
2a	Northend – Historical and Current LNAPL Extents
2b	Southend – Historical and Current LNAPL Extents
3	2013 Northend NSZD Rate Measurement Locations
4	AOI 09-B MPE System – Cumulative LNAPL and Vapor Removed
5	AOI 09-B MPE System – Total Mass Removed and Recovery Ratio
6	NPDES Plus Monitoring Program Sampling Locations and Outfall Drainage Areas
7	Groundwater Elevation Contour Map – June 2013
8	Groundwater Samples Exceeding groundwater/Surface Water Interface criteria - Northend
9	Groundwater Samples Exceeding groundwater/Surface Water Interface criteria - Southend
10	Benzo(a)pyrene Excavation Limits and Confirmation Soil Sample Locations
11	Lead Excavation Limits and Confirmation Soil Sample Locations
12	Location of Areas Requiring Surface Cover (ARSC) – Southend of the Site, North of Hamilton Ave
13	Location of Areas Requiring Surface Cover (ARSC) – Southend of the Site, South of Hamilton Ave
14	Outfall 004 Reroute Flow Monitoring Locations
15	Bulkheading Site Plan – Northend
16	Bulkheading Site Plan – Southend
17	002 Passive Recovery Trench Location Map

Appendices

A	Respirometry Report by Environmental Business Specialists
B	AOI 09-B Permit Report and Analytical Data
C	Historic NPMP Data
D	Historic Groundwater Monitoring Data

E	AOI-09-A Impacted Soil Removal Work Plan
F	Select Surface Cover Work Plan and Inspection Reports
G	Storm Sewer Video Inspection Memos
H	Outfall 004 Re-route Evaluation Memos
I	Storm Sewer Bulkheading Work Plans
J	WMU Closure Correspondence from MDEQ
K	Northern Parcel Sampling Results Memo

Acronyms and Abbreviations

1,1-DCA	1,1-dichloroethane
1,1,1-TCA	1,1,1-trichloroethane
1,2,4-TMB	1,2,4-trimethylbenzene
AGMP	Annual Groundwater Monitoring Program
AOI	Area of Interest
ARSC	Area requiring surface cover
BBL	Blasland, Bouck & Lee, Inc.
bgs	Below ground surface
CCTV	Closed circuit television
CMI	Corrective Measures Implementation
CMI Report	2013 Corrective Measures Implementation Annual Report
CMI Work Plan	Corrective Measures Implementation Work Plan
COC	Constituent of concern
CSX	CSX Corporation
CSU	Colorado State University
FE	Flammability and Explosivity Screening Level
Final Decision	*Final Decision and Response to Comments for Soil and Groundwater Cleanup at the Southend of the Former General Motors Corporation North American Operations*
FSP	Field Sampling Plan
ft^2/day	Square feet per day
GMC	General Motors Corporation
GSI	Groundwater/Surface Water Interface
ITRC	Interstate Technology & Regulatory Council
LIF	Laser-induced fluorescence
LNAPL	Light non-aqueous phase liquid
MDEQ	Michigan Department of Environmental Quality
MP	Monitoring point
MPE	Multi-phase extraction
MS/HO	Mineral seal/hydraulic oil
ng/L	Nanograms per liter

NDC	Non-Residential Direct Contact
NGVIA	Non-Residential Groundwater Volatilization to Indoor Air Inhalation
NSZD	Natural source zone depletion
NPDES	National Pollutant Discharge Elimination System
NPMP	NPDES Plus Monitoring Program
OMM	Operations, monitoring, and maintenance
Outfall 003/004 System	Outfall 003/004 Stormwater Diversion and Treatment System
OWS	Oil/water separator
Part 201	Part 201 of the Natural Resources and Environmental Protection Act, 1994 Public Act 451, found at Michigan Compiled Laws 324.101 et seq
PCB	Polychlorinated biphenyl
POTW	Publically owned treatment works
RACER	Revitalizing Auto Communities Environmental Response
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RFI Work Plan	Resource Conservation and Recovery Act Facility Investigation Work Plan
QAPP	Quality Assurance Project Plan
Site	Buick City Site, located in Flint, Michigan
SVE	Soil vapor extraction
SVOC	Semivolatile organic compound
TCE	Trichloroethene
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
TSS	Total suspended solid
µg/L	Micrograms per liter
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound
VOM	Volatile organic material
WMU	Waste management unit

1. Overview of Corrective Measures Implemented

This *2013 Corrective Measures Implementation Annual Report* (CMI Report) was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for the Buick City Site (formerly known as General Motors Corporation [GMC] North American Operations), located in Flint, Michigan (Site).

The *Corrective Measures Implementation Work Plan* (CMI Work Plan) was submitted to the United States Environmental Protection Agency (USEPA) on August 13, 2010 (ARCADIS 2010). The CMI Work Plan was prepared to comply with requirements of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) and the Hazardous and Solid Waste Amendments, 42 United States Code (§ 6901 et seq., and USEPA regulations 40 Code of Federal Regulations Parts 260-271 and Part 124. This CMI Report was prepared to document and summarize corrective measures completed and implemented during the 2013 calendar year, as well as investigations, testing, and other activities completed in support of corrective measures design and implementation. The corrective measures are being implemented in accordance with the *Final Decision and Response to Comments for Soil and Groundwater Cleanup at the Southend of the Former General Motors Corporation North American Operations* (Final Decision) for the Southend of the Site issued by the USEPA on May 13, 2010 (USEPA 2010).

1.1 Introduction

The Site is located at 902 East Leith Street in Flint, Michigan, in Genesee County, and encompasses 425 acres of land. It is generally bounded to the north by Stewart Avenue and Pierson Road, to the south by Harriet Street, to the east by James P. Cole Boulevard and CSX Corporation (CSX) Railroad, and to the west by Industrial Avenue and North Street. The portion of the Site located north of Leith Street (hereafter referred to as the Northend) was in part occupied by GMC for manufacturing operations until December 6, 2010. Factory demolition has been completed in both the Northend of the Site and the portion of the property located south of Leith Street (hereafter referred to as the Southend). A site location map is included as **Figure 1**.

1.2 Summary of 2013 Corrective Measures

The following corrective measures and other significant Site activities were completed in 2013, and are discussed further in their respective sections of this CMI Report:

- Light non-aqueous phase liquid (LNAPL) investigation and characterization activities were performed during 2013 to define the current extents of LNAPL, and to acquire additional data to aid in the recommendation of remedial technologies for LNAPL present at the Site.
- The Area of Interest (AOI) 09-B multi-phase extraction (MPE) system began operation in April 2013.
- The annual groundwater monitoring event was conducted from June 3 through June 7, 2013. The purpose of the annual groundwater monitoring event is to monitor groundwater quality and flow patterns, as well as LNAPL areas at the Site. Additional groundwater sampling was conducted from September 13 through September 26, 2013 to confirm results of wells that had not been sampled in more than 5 years.
- The National Pollutant Discharge Elimination System (NPDES) Plus Monitoring Program (NPMP) was continued at the Site to evaluate compliance with Michigan Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act 451, which can be found at Michigan Compiled Laws 324.101 et seq. Groundwater/Surface Water Interface (GSI) criteria for the long-term protection of the Flint River. The NPMP consists of collecting monthly samples from up to 11 Site storm sewers during dry weather flow to assess the impact of groundwater infiltrating into the Site storm sewers.
- Excavation activities were completed on CSX property adjacent to AOI 09-A area in September and October 2013 to remediate the off-site areas of lead- and benzo(a)pyrene-impacted soils. Surface cover was then installed over the on-site lead-impacted soils at AOI 09-A to provide protection from potential direct contact exposure. Quarterly inspections of surface covers have been completed since cover installation. The surface covers protect Site users from near surface soils that exceed direct contact criteria. The engineering controls include maintaining the

surface cover consistent with existing conditions at six AOIs located in the Southend of the Site.

- Select storm sewer mains and laterals were bulkheaded at Outfalls 002, 003, 005, and 007 to minimize or eliminate the Site's contribution.
- The Outfall 003/004 Stormwater Diversion and Treatment System (Outfall 003/004 System) installation was completed in January 2011. The Outfall 003/004 System continues to operate and is maintained by an operations and maintenance technician. Maintenance procedures and events occur based on field observations and levels.
- Outfall containment areas continue to be maintained and inspected for oil/debris accumulation, absorbent boom saturation, and that containment booms are in good condition and functioning properly.
- Soil and/or groundwater sampling activities were performed to delineate impacts at the Northern Parcel, the former Factory 31 basement, and AOI 83/84-3.

2. Light Non-Aqueous Phase Liquid Investigation, Characterization, and Remediation

LNAPL investigation and characterization activities were conducted at the Site during 2013 to delineate the extent of LNAPL and LNAPL-related impacts, as well as to acquire additional Site data to aid in the recommendation of remedial technologies to address LNAPL present at the Site. A brief summary of the investigation and characterization activities are presented below; however, the results and evaluation of the activities will be presented in their entirety in the *Remedy Recommendation Report* (targeted for submission to USEPA by end of August 2014).

LNAPL remediation activities included the installation and operation of an MPE system to extract groundwater, LNAPL, and soil gas from the AOI 09-B Gasoline Area.

2.1 Light Non-Aqueous Phase Liquid Investigation

LNAPL investigation activities were conducted at the Site in accordance with the *LNAPL Investigation Work Plan* (ARCADIS 2013a), *LNAPL Investigation Work Plan #2* (ARCADIS 2013b), *LNAPL Investigation Work Plan #3* (ARCADIS 2013c), and *LNAPL Investigation Work Plan #4* (ARCADIS 2013d).

Soil borings, monitoring wells, and temporary wells were installed to better delineate the extent of LNAPL areas; to investigate impacts identified by the laser-induced fluorescence (LIF) investigation; and to delineate polychlorinated biphenyl (PCB) impacts in LNAPL and soil. While investigating LIF impacts in the Factory 83/84 Area, two additional LNAPL areas were discovered – AOI 83/84-1 and AOI 83/84-5 (**Figure 2a**). In addition, delineation activities determined that the AOI 36-1 mineral seal/hydraulic oil (MS/HO), the AOI 36-2 MS/HO, and the AOI 36-1 gasoline LNAPL areas are a comingled LNAPL area, now referred to as the AOI 36-1/36-2 LNAPL area. **Figure 2a** (Northend) and **Figure 2b** (Southend) present the updated LNAPL extents, as well as the locations of the soil borings, temporary wells, and monitoring wells.

2.2 Light Non-Aqueous Phase Liquid Characterization Activities

2.2.1 Natural Source Zone Depletion Study

The objective of the natural source zone depletion (NSZD) study conducted at the Northend of the Site was to establish ongoing natural attenuation rates of LNAPL as a baseline for comparison to active LNAPL recovery technologies. Due to the shallow depth to groundwater at the Site, NSZD was measured through carbon dioxide traps from Colorado State University (CSU). The carbon traps were installed at grade at eight locations in LNAPL areas AOI 36-2, AOI 81-2, AOI 03-1, AOI 05-1/05-5, and AOI 86-1, as shown on **Figure 3.** The carbon traps were deployed for 30 days to measure the carbon dioxide fluxes in the soil. The carbon traps were then submitted to CSU for analysis.

The results of analysis of the results indicated LNAPL loss rates ranging from 176 gallons per acre per year (AOI 81-2 – west side of the LNAPL area) to 3,448 gallons per acre per year (AOI 81-2 – east side of the LNAPL area) as presented in **Table 1**.

2.2.2 Light Non-Aqueous Phase Liquid Transmissivity Study

The objective of the LNAPL transmissivity study was to quantify relative LNAPL recoverability at the Northend of the Site. LNAPL transmissivity will also be used to focus LNAPL recovery efforts in areas where LNAPL is practical and/or used as a test to establish the practicable limits of LNAPL recovery.

LNAPL baildown tests were completed at the Site in April 2013 and August 2013 in accordance with the *LNAPL Investigation Work Plan* (ARCADIS 2013a). In March 2013, groundwater/LNAPL levels were collected from each of the LNAPL areas located in the Northend to determine which monitoring wells met the requirements of the testing (monitoring wells exhibiting greater than 0.5 foot of in-well LNAPL accumulation where the air/LNAPL and LNAPL/water interfaces are within the well screen). Transmissivity testing that met the requirements was completed at select monitoring wells located in LNAPL areas AOI 36-1/36-2, AOI 10-1/10-4, AOI 05-1, AOI 81-2, AOI 83/84-2, AOI 83/84-4, and AOI 83/84-5.

The transmissivity data are compared to the following criteria to aid in determining whether LNAPL is readily recoverable:

- Interstate Technology & Regulatory Council's (ITRC's) suggested minimum range indicating that LNAPL recovery may be practical is 0.1 to 0.8 square feet per day (ft^2/day; ITRC 2009).
- The Michigan Department of Environmental Quality (MDEQ) has indicated that an LNAPL transmissivity of 0.5 ft^2/day may be established as a draft standard threshold value for recovery to the maximum extent practicable (Swiger 2013), permitting the use of LNAPL transmissivity as a quantitative recoverability metric in the State of Michigan in the absence of risk-based LNAPL concerns.

The majority of the monitoring wells at the Northend of the Site exhibited transmissivities that indicate hydraulic LNAPL recovery is not practicable. At monitoring wells 43-162 and 43-165, transmissivity results were inconclusive due to poor LNAPL recovery. Only three monitoring wells, 20-FP7, MW-83/84-7, and RFI-83/84-53, exhibited transmissivity results that indicate LNAPL recovery may be practicable.

Table 2 summarizes the results of the LNAPL transmissivity study.

2.2.3 Respirometry

Respirometry testing was conducted to determine if soil mixing and/or land farming are viable remedial options. Samples were collected from AOI 02-B at the Southend of the Site for the respirometry testing. Three separate depths were tested: 5 to 10 feet below ground surface (bgs), 10 to 15 feet bgs, and 5 to 15 feet bgs. Soil samples were analyzed for total petroleum hydrocarbons (TPH) prior to being placed in a respirometer soil reactor for 30 days. Soil samples from each of the three depth intervals were treated with microbes (Probiotic Scrubber II and UltraTech UltraMicrobes), creating six total samples. The microbes were added to determine if they would enhance the effectiveness and LNAPL degradation rate. A nutrient (Miracle Gro®) was also added to the UltraTech UltraMicrobes.

The results of the testing indicated that the control sample degraded at a rate similar to the treated samples, with the added nutrients indicating that there are adequate nutrients present in the soil. The control sample contained lower levels of TPH after the incubation period than the treated samples, indicating the highly variable nature of clay soil. Neither microbe produced a significant improvement in degradation. The results indicate the oxygen rate is limited at the Site, and land farming, passive venting, soil vapor extraction, or air sparge may be viable options. **Appendix A** presents the results of the respirometry testing.

2.3 Light Non-Aqueous Phase Liquid Remediation – AOI 09-B Operations and Maintenance

The AOI-09-B MPE system, installed in 2012, was designed to apply vacuum to recovery wells to extract groundwater, LNAPL, and soil gas to remediate the AOI 09-B gasoline area. The system dewaters the more permeable sandy deposits in the shallow saturated zone where most of the LNAPL resides, making these zones accessible for induced air flow. Air flow through the dewatered zone can then volatilize and facilitate recovery of volatile organic compounds (VOCs) present in LNAPL. The MPE system consists of 28 recovery wells, conveyance piping from each recovery well to the MPE system building, an oil/water separator (OWS), an air stripper to treat the discharge from the OWS, granular-activated carbon to treat the groundwater discharge from the air stripper, and a thermal oxidizer to treat the vapors discharged from the MPE wells and air stripper.

2.3.1 Summary of 2013 Operations

The AOI 09-B MPE system started on April 9, 2013 and operated 3,558 hours (148 days) throughout the 2013 operational period (April 9 through November 26, 2013). Monthly operational hours ranged from 125 hours in April 2013 to 646 hours in October 2013 (see **Table 3**). The AOI 09-B MPE system was shut down for the winter on November 26, 2013 to prevent damage to system components due to ambient temperatures consistently below or near freezing temperatures.

Effluent wastewater samples were collected and analyzed in accordance with the City of Flint Use Permit No. 2-02-RBC001 (**Appendix B**). One 24-hour flow-proportional

composite effluent wastewater sample and four individual effluent grab wastewater samples were collected at least monthly during the 2013 operational period. All wastewater samples were submitted, including proper chain-of-custody documentation, to Merit Laboratories, Inc. of East Lansing, Michigan (Merit). **Appendix B** includes the wastewater analytical reports.

Vapor samples were collected and analyzed in accordance with Permit to Install No. 165-11 (**Appendix B**). Vapor sampling of the system, which included collecting influent air samples from the soil vapor extraction and air stripper air streams, was performed during the 2013 operational period. Samples were collected at least monthly and analyzed for individual volatile organic material (VOM) constituents via USEPA Method TO-15 and total non-methane organic compounds via USEPA Method TO-12. All vapor samples were submitted, including proper chain-of-custody documentation, to TestAmerica Laboratories, Inc. of Knoxville, Tennessee. **Appendix B** includes the vapor analytical reports.

2.3.2 2013 System Performance

In 2013, the AOI 09-B MPE system treated and discharged approximately 700,000 gallons of water to the City of Flint publicly owned treatment works (POTW). As discussed in the monthly POTW reports, monthly discharge volumes ranged from 54,686 gallons in April 2013 to 120,354 gallons for the June reporting period. Discharge volumes generally declined through the 2013 operational period as monthly operational time increased and subsurface dewatering of the shallow groundwater formation was maintained (see **Appendix B**).

As discussed above, effluent wastewater samples were collected at least monthly during the 2013 operational period. Effluent concentrations exceeded permit limits for ethylbenzene and total xylenes on April 11, 2013, and for zinc on April 30, 2013. Per the permit conditions, notifications of the exceedances were orally communicated to Tom Hutchings at the City of Flint Water Pollution Control Division within 24 hours of receiving the results, and written notifications were provided to the City of Flint within 5 business days. Corrective actions taken to address the exceedances included decreasing the system flow rates and increasing efficiency of the treatment train. All

other wastewater analytical results for 2013 were within permit limitations. **Appendix B** includes the monthly POTW reports submitted in 2013.

Analysis of the vapor samples, as shown on **Figure 4**, indicated 1,914 pounds of VOM mass was removed in the vapor phase during 2013. Monthly vapor phase VOM mass removal ranged from 879 pounds in April 2013 to 36 pounds in November 2013 (**Table 3**). All vapor emissions were within permit limitations for the 2013 operational period. **Appendix B** includes the monthly VOC emissions reports submitted in 2013.

As shown on **Figure 4**, the system removed 834 pounds (133 gallons) of LNAPL during operation in 2013. Monthly LNAPL removal ranged from 346 pounds (55 gallons) in April 2013 to 0 pounds in October 2013 (**Table 3**). LNAPL volumes collected generally decreased month to month during operations.

As discussed in the *AOI 09-B Remedial Endpoints, Buick City, Flint, Michigan Memo* (ARCADIS 2012a), operation of the MPE system will be discontinued after 2 years of operation or when the LNAPL and vapor mass recovery reaches asymptotic conditions, whichever occurs first. A reasonable endpoint for the AOI 09-B MPE system was determined to be when the daily total mass recovery (liquid and vapor) was less than 0.1% of the prior total mass recovery, indicating that future recovery would be insignificant compared to the mass recovered to date. The monthly ratios for this evaluation generally declined over time, with a maximum of 1.61% observed in July 2013 and a minimum of 0.08% in November 2013 (**Table 3**). November was the only month when the ratio was observed to be less than 0.10%; however, the asymptotic trend is expected to continue with future operation of the system (**Figure 5**).

3. Groundwater Monitoring

Groundwater monitoring is conducted at the Site through two programs: the NPMP and the Annual Groundwater Monitoring Program (AGMP). The NPMP program monitors the Site's storm sewers for impacted groundwater infiltration, while the AGMP monitors the downgradient Site boundary for off-site groundwater migration.

3.1 National Pollutant Discharge Elimination System Plus Monitoring Program

The NPMP has continued to be implemented at the Site to monitor compliance with MDEQ Part 201 GSI criteria for the long-term protection of the Flint River. The monthly NPMP sampling continued to be completed at Site Outfalls 001, 002, 003, 005, 006, 007, 009, 010, 011, and 013 (**Figure 6**). However, as discussed in Section 5.2, the Site's contribution to Outfall 002, 005, and 007 were eliminated in spring 2013 via bulkheading; therefore, NPMP sampling ceased following bulkheading activities. The NPMP monitoring points are co-located with those that have been identified in the current and previous NPDES permits.

On May 29, 2012, the USEPA approved the modifications to the sampling program proposed in the 2011 CMI Annual Report (ARCADIS 2012b). The modifications were implemented at the Site starting in June 2012. **Table 4** presents the currently-approved NPMP sampling program.

All NPMP samples were collected as grab samples during dry-weather flow using a peristaltic pump fitted with tubing, with the exception of the PCB samples that were collected using an automated sampler to collect 24-hour composite samples, as indicated in **Table 4**. The samples were collected and analyzed using the procedures described in the Site's *Field Sampling Plan* (FSP) and *Quality Assurance Project Plan* (QAPP) (Appendix C of the *Resource Conservation and Recovery Act Facility Investigation Work Plan* [RFI Work Plan; Blasland, Bouck & Lee, Inc. {BBL} 2001]).

3.1.1 Summary of Results

Table 5 presents the analytical results of the 2013 NPMP sampling events. Please note that the December 2013 NPMP event was unable to be completed due to the lack of dry weather. **Appendix C** presents the historical NPMP data for reference.

3.1.1.1 Outfall 001 Results Evaluation

Outfall 001 is sampled at MP001, which is located at MH 1-3 (**Figure 6**). Samples were collected during eight out of 11 sampling events in 2013. When compared to MDEQ Part 201 GSI criteria, one sample exceeded for copper, three samples exceeded for mercury, and one sample exceeded for silver. **Table 5** presents the analytical data.

There may be a correlation to total suspended solids (TSS) concentrations and mercury concentrations at Outfall 001. Sample results from February and November 2013 indicate that higher than average TSS concentrations may result in higher than average mercury concentrations. Impacts at Outfall 001 are primarily associated with mercury; however, the August 2011 upstream sampling data indicate that off-site upstream sources are impacting the water discharging at Outfall 001.

3.1.1.2 Outfall 002 Results Evaluation

Outfall 002 is sampled at MP002, which is located at MH 2-19 (**Figure 6**). Samples were collected at MP002 during three out of four sampling events in 2013 (prior to bulkheading). When compared to MDEQ Part 201 GSI criteria, one sample exceeded for arsenic, one sample exceeded for copper, three samples exceeded for cyanide, two samples exceeded for mercury, and one sample exceeded for silver. **Table 5** presents the analytical data.

Outfall 002 was bulkheaded in May 2013 to eliminate site contributions to the Flint River.

3.1.1.3 Outfalls 003 and 004 Results Evaluation

Outfall 003 is sampled at MP003, which is located at MH 3-3 (**Figure 6**). Following the installation of the Outfall 003/004 system in January 2011, the discharge at MP003

became a combined flow from the Outfall 003 and 004 systems. This section presents data from samples of the combined flow. Samples were collected during all 11 sampling events in 2013. When Outfall 003 samples were compared to MDEQ Part 201 GSI criteria, one sample exceeded for copper, one sample exceeded for cyanide, and eight samples exceeded for mercury. **Table 5** presents the analytical data.

In addition, upstream samples collected in 2012 indicated that off-site sources are likely a contributor to the mercury impacts that are being detected at MP003.

Because Outfall 003 drains upstream off-site properties, only laterals were bulkheaded in 2013, to eliminate oil contribution to Outfall 003. Options for addressing the storm sewer mains in Outfall 003 are being developed.

3.1.1.4 Outfall 005 Results Evaluation

Outfall 005 is sampled at MP005, which is located at MH 5-6 (**Figure 6**). Samples were collected at MP005 during four out of four sampling events in 2013 (prior to bulkheading). When compared to MDEQ Part 201 GSI criteria, one sample exceeded for arsenic, one sample exceeded for copper, and two samples exceeded for mercury. **Table 5** presents the analytical data.

As discussed in Section 5.2, the Outfall 005 storm sewer was bulkheaded near the southeastern corner of the former Building 83/84 in May 2013 to eliminate Site contributions to the Flint River.

3.1.1.5 Outfall 006 Results Evaluation

Outfall 006 is sampled at MP006, which is located at MH 6-2 (**Figure 6**). Samples were collected at MP006 during all 11 sampling events in 2013. When compared to MDEQ Part 201 GSI criteria, six samples exceeded for mercury. **Table 5** presents the analytical data.

3.1.1.6 Outfall 007 Results Evaluation

Due to access issues, the primary sampling location (MH 7-1) was changed after the September 2010 sampling event to where Outfall 007 discharges into the Flint River.

This sample location is called MP007 (**Figure 6**). Samples were collected at MP007 during four out of four sampling events in 2013 (prior to bulkheading). When compared to MDEQ Part 201 GSI criteria, three samples exceeded for mercury. **Table 5** presents the analytical data.

Outfall 007 was bulkheaded in May 2013 to eliminate Site contributions to the Flint River.

3.1.1.7 Outfall 009 Results Evaluation

Outfall 009 is sampled at MP009, which is located at MH 11-7 (**Figure 6**). Samples were collected at MP009 during nine of the 11 sampling events in 2013. When compared to GSI criteria, one sample exceeded for arsenic, one sample exceeded for cadmium, one sample exceeded for chromium, one sample exceeded for copper, five samples exceeded for cyanide, one sample exceeded for lead, one sample exceeded for manganese, six samples exceeded for mercury, one sample exceeded for vanadium, and one sample exceeded for zinc. **Table 5** presents the analytical data.

There may be a correlation to TSS concentrations and metals exceedances at Outfall 009. In July 2013, TSS were significantly higher than average at this location, and MDEQ Part 201 GSI criteria exceedances were detected for eight metals that did not exceed criteria at any other time throughout the year.

The Outfall 009 storm sewer joins the Outfall 011 storm sewer at Hamilton Avenue and discharges to the Flint River through Outfall 011. The Outfall 011 storm sewer is sampled at the discharge point, and the Outfall 011 samples do not exceed MDEQ Part 201 GSI criteria.

3.1.1.8 Outfall 010 Results Evaluation

Outfall 010 is sampled at MP010, which is located at MH 10-5 (**Figure 6**). Samples were collected at MP010 during all 11 sampling events in 2013. When compared to MDEQ Part 201 GSI criteria, one sample exceeded for arsenic, one sample exceeded for chromium, two samples exceeded for copper, six samples exceeded for cyanide, one sample exceeded for lead, one sample exceeded for manganese, six samples

exceeded for mercury, and one sample exceeded for zinc. **Table 5** presents the analytical data.

3.1.1.9 Outfall 011 Results Evaluation

Due to access issues, the primary sampling location (Outfall 011) was changed in 2012 to where Outfall 011 discharges into the Flint River. However, the outfall discharge point was only able to be sampled during one of the scheduled 11 sampling events in 2013 due to high water elevation. Per the revised sampling schedule, Outfall 011 was slated for quarterly sampling beginning in July 2012. MDEQ Part 201 GSI criteria were not exceeded in the one sample. **Table 5** presents the analytical data.

3.1.1.10 Outfall 013 Results Evaluation

Outfall 013 is sampled at MP013, which is located at MH 13-6 (**Figure 6**). Samples were collected at MP013 during 10 of the 11 sampling events in 2013. When compared to MDEQ Part 201 GSI criteria, three samples exceeded for copper, one sample exceeded for cyanide, and seven samples exceeded for mercury. **Table 5** presents the analytical data.

There may be a correlation to TSS concentrations and mercury exceedances at Outfall 013. Sample results from July and September 2013 indicate that higher than average TSS concentrations may result in higher than average mercury concentrations.

An upstream sample was collected in July 2012 to evaluate contributions from upstream off-site sources to MP013. The analytical data showed that mercury was detected at the upstream sampling location, as well as at MP013, both exceeded MDEQ Part 201 GSI criteria. These data indicates that off-site sources are likely a contributor to the mercury impacts that are being detected at MP013.

3.1.2 NPDES Plus Monitoring Program Data Evaluation

Appendix C includes the historical NPMP sampling analytical data. These data indicate that the primary constituents of concern (COCs) present in the stormwater are metals, primarily mercury.

3.1.2.1 Evaluation of NPDES Plus Monitoring Program Data Pre- and Post-Demolition

Demolition activities ceased at the Site in May 2012. A review of the NPMP data indicate that the number of metals exceedances and concentrations of exceedances were greater prior to 2012 than after 2012. **Table 6** presents the geometric mean concentrations of mercury based on NPMP samples collected from Site outfalls that could be sampled. Note that the geometric mean mercury concentrations in the Northend of the Site (represented by Outfalls 001, 002, 003, 004, and 005) were greater in the 2010 to 2013 dataset (represents both pre- and post-demolition samples) compared to the 2012 to 2013 dataset (post-demolition). This dataset suggests that the post-2012 data are likely more representative for assessing potential remedies for mercury and other metals in the storm sewers.

3.1.2.2 Evaluation of Metals Exceedances at Remaining Outfalls

As mentioned above, the Site's contribution to Outfalls 002, 005, and 007 were eliminated in 2013 via bulkheading. In addition, the Site's contribution to Outfalls 009 and 010 are currently in the process of being bulkheaded, and, therefore, will not be further evaluated. The remaining outfalls, to which the Site contributes, are Outfalls 001, 003, 006, 011, and 013**.** The *repeatable* MDEQ Part 201 GSI criteria exceedances at each of these storm sewers, as well as with the highest concentration for each COC, are summarized below.

Outfall	MDEQ Part 201 GSI Criteria Exceeded (High Concentration/GSI Criteria) [1]	# of GSI Exceedances	# of Samples
001	Mercury (6.7/1.3 ng/L)	8	18
003	Cyanide (8/5.2 µg/L)	3	23
	Mercury (30/1.3 ng/L)	16	22
006	Mercury (27/1.3 ng/L)	10	21
013	Copper (69/21.6 µg/L)	6	21
	Cyanide (12/5.2 µg/L)	2	21
	Mercury (220/1.3 ng/L)	16	19

Notes:
[1] No exceedances have been detected at Outfall 011.
ng/L = nanograms per liter
µg/L = micrograms per liter

The NPMP data indicate that mercury is the primary COC present in stormwater samples, exhibiting numerous GSI exceedances. The presence of metals in the storm sewer is derived from one or more of the following sources:

- Impacted sediment that has discharged into the sewer over time from on-site industrial activities
- Impacted groundwater and associated solids discharge into sewers, and
- Upstream sources (sewers discharging to Outfalls 001 and 003)

To evaluate the potential impact of metals as a result of sediment discharges to the storm sewers, TSS was also measured in the NPMP samples, to determine the effect that suspended solids may have on metals concentrations. A preliminary evaluation of the TSS data show no definitive correlation between metals and TSS based on these data.

3.1.3 Requested Changes to the Monitoring Plan and Response Plan

Based on the results of the NPMP data evaluation, the following exceedances require additional investigation: Outfall 001 (mercury), 003 (cyanide and mercury), 006 (mercury), and 013 (copper, cyanide, mercury). It is requested that the NPMP monthly sampling be discontinued and the NPMP program transition to an investigation phase to determine the source, extent, and nature of these impacts identified at Outfalls 001, 003, 006, and 013. The investigation sampling will be completed to determine if there are impacts at the GSI compliance point (storm sewer discharge point at the river), to determine whether the metals impacts are associated with sediments and/or groundwater infiltration, to evaluate contributions from upstream sources, and to identify potential on-site source areas. In addition, sampling will be completed to confirm that there are no GSI exceedances downstream of the bulkheads installed within the Outfall 005 storm sewer. The NPMP investigation sampling will include collecting samples from NPMP monitoring points, upstream monitoring points, points along the storm sewers, and/or discharge points to the river and submitting the samples for laboratory analysis of dissolved and total metals (filtered and unfiltered samples, respectively). NPMP investigation activities will also include a desktop review

of available Site data along these sewers to aid in determining potential sources of impacts.

3.2 **Annual Groundwater Monitoring Program**

The 2013 AGMP was completed in accordance with the plan presented in the 2012 CMI Report (ARCADIS 2013e), and the additional groundwater sampling plan presented in the approved *LNAPL Investigation Work Plan #2* (ARCADIS 2013b). The initial 2013 monitoring event was completed in June 2013 and included collecting site-wide groundwater levels, LNAPL presence and thickness measurements, and groundwater quality samples. In September and November 2013, additional groundwater samples were collected to confirm select results from the June event. **Table 7** presents the groundwater level and LNAPL presence/thickness monitoring locations measured during the June 2013 event. **Table 8** presents the groundwater quality monitoring locations included in the 2013 monitoring events.

3.2.1 Monitoring Network Inspection and Maintenance

The 29 monitoring wells added to the 2013 sampling event were inspected and developed prior to sampling to confirm working order. These wells were found to be in good working order, with the exception of RFI-10-05, which could not be located. During the collection of groundwater levels, 27 monitoring wells were unable to be gauged (i.e., water level or LNAPL presence measurement) for the following reasons: wells were not accessible (access agreement not finalized); wells were damaged, blocked, or paved over; wells could not be located; or wells were underwater. **Table 7** notes wells that could not be gauged. Prior to completing the 2014 event, alternate locations will be selected (where possible) to replace wells that were damaged, inaccessible, or could not be found.

Recommendations for repairing, replacement, and/or abandonment of Site monitoring wells will be completed following approval of the 2014 proposed monitoring plan. A list of monitoring wells selected for abandonment will be submitted to the USEPA for review and approval.

3.2.2 Groundwater Level and Light Non-Aqueous Phase Liquid Presence Measurements

As part of the June 2013 monitoring event, a site-wide round of groundwater level and LNAPL presence and thickness measurements were completed, which included measurements from 123 locations in the Northend and 120 locations in the Southend (**Table 7**). **Figure 7** shows monitoring well locations for the Site.

3.2.2.1 Groundwater Level and Flow Evaluation

Table 7 summarizes groundwater level measurements and elevations. Depth to groundwater ranges from approximately 2 to 25 feet bgs in the Northend of the Site and 0 (at ground surface) to 25 feet bgs in the Southend of the Site. Groundwater is encountered in the shallow fill, sand, or silty clay layers.

The **Figure 7** contour map presents groundwater flow at the Site. In general, groundwater flow at the Site is toward the east and southeast, toward the Flint River, which is the local groundwater discharge area for shallow groundwater at the Site. However, local groundwater flow is strongly influenced by the network of storm sewers at the Site. Most of the storm sewer mains were constructed below the water table at the Site. As such, the storm sewers serve as local groundwater discharge points, and groundwater contours are deflected in the upgradient direction. In the Northend, this is evident within the Outfall 003 drainage area along the two sewer mains and one of the laterals. The Outfall 004 and 005 storm sewers also have a significant influence on groundwater (**Figure 7**). In the Southend, the impact of the storm sewers on groundwater flow is evident within the Outfall 011 drainage area. In addition, in the Outfall 009 drainage area, a tunnel located north of the former Building 40 is causing a localized drawdown of the water table and deflection of groundwater contours. As a result of the localized groundwater flow and discharge into the storm sewers, the majority of groundwater beneath the Site likely discharges to the Flint River through the storm sewers.

3.2.2.2 Bulkheading

As further discussed in Section 5.2, a number of storm sewers at the Site were bulkheaded in spring 2013, including Outfalls 002, 005, and 007 and select laterals

along Outfall 003, prior to the 2013 sampling event (**Figure 7**). In addition, historically, Outfall 006 was bulkheaded just west of the railroad tracks on the Site, and Outfall 008 was bulkheaded near the downstream Site boundary.

Bulkheading activities completed at Outfalls 002, 003, and 005 have eliminated the pathway to the Flint River for a number of AOIs, as follows:

- The Outfall 002 storm sewer has been bulkheaded at the Site boundary, therefore, eliminating the pathway to the Flint River from the AOI 36-1/AOI 36-2 LNAPL area (**Figure 8**).
- Select Outfall 003 laterals were bulkheaded to minimize/eliminate infiltration from AOI 05-1/05-5, AOI 10-1/10-4, AOI 83/84-2, and AOI 83/84-5 LNAPL areas (**Figure 8**).
- The Outfall 005 storm sewer has been bulkheaded near the southeastern corner of the former Factory 83/84, therefore, eliminating the potential pathway to the Flint River from AOI 83/84-2 and AOI 83/84-5 LNAPL areas (**Figure 8**).

A bulkhead has the effect of "backing up" the water that formerly flowed through that portion of the storm sewer. This impact can be seen within the Outfall 002 drainage area, beneath the former Factory 36 Area (**Figure 7**), where there appears to be a groundwater mound. This effect is also apparent within the Outfall 006 drainage area. Several new bulkheads have been completed since the time that these groundwater levels were measured; therefore, it is anticipated that future groundwater contours will continue to evolve to reflect changing Site conditions.

The localized groundwater flow into the storm sewers underscores the importance of the NPMP sampling (Section 3.1).

3.2.2.3 Light Non-Aqueous Phase Liquid Presence Evaluation

Figures 8 and **9** present the current extent of LNAPL at the Site, which also show the historical LNAPL footprint as a dashed line for comparison. **Figures 8 and 9** also present locations where LNAPL was measured during the 2013 event in a monitoring well at a thickness of greater than 0.1 feet.

The presence of LNAPL at the Site is related to releases from historical manufacturing operations (including releases from storage tanks). Accounting for water table fluctuations, 2013 LNAPL data are generally consistent with historical data, suggesting LNAPL areas at the Site are stable and are considered unlikely to migrate outside of established footprints. It was noted that at select monitoring wells locations (RFI-36-07 and RFI-86-03), the LNAPL thicknesses have decreased as the groundwater levels have increased over the last 10 years, and LNAPL was no longer detected during the 2013 event.

While the LNAPL areas are stable and not migrating, LNAPL has continued to infiltrate the Outfall 003 storm sewer (from the AOI 05-1 and 10-4 LNAPL areas) and the Outfall 004 storm sewer (from the AOI 12-C, AOI 83/84-1, and AOI 86-1 LNAPL areas).

3.2.3 Groundwater Quality Monitoring Program

The AGMP included the collection and analysis of groundwater samples from 40 groundwater monitoring wells in accordance with the 2012 CMI Report (ARCADIS 2013e), as well as eight additional wells (20-102, 20-105R, 87-FP-3, 87-FP-5, RFI-36-08, RFI-84-10D, RFI-84-10S, and RFI-86-08R) included in the approved LNAPL Investigation Work Plan #2 (ARCADIS 2013b). The additional monitoring wells were included to characterize current concentrations of the dissolved-phase plumes upgradient of the standard monitoring points (that is, closer to probable source area). The initial 2013 monitoring event was completed in June; however, additional samples were collected from select locations in September and November 2013 to confirm select results from the June event prior to recommending remedies to address impacts in these areas.

Of the 48 monitoring wells included in the AGMP, two monitoring wells were not sampled. Monitoring well RFI-10-05 could not be located, and MW-26 was inaccessible. SampleServe.com of Traverse City, Michigan sampled 46 monitoring wells from June 5 to 7, 2013. Additional sampling was performed at 10 monitoring wells (that had been sampled in June 2013) from September 16 to 26, 2013 and at two additional wells on November 1, 2013. **Table 8** presents the monitoring well locations

included in the AGMP, the specific analyses completed for each sampled location, and the rationale for the inclusion of each monitoring well in the program.

The groundwater samples were collected, analyzed, and validated using methods and procedures consistent with those employed previously at the Site, as described in the Site's FSP and QAPP (Appendix C of the RFI Work Plan [BBL 2001]) and the CMI Work Plan (ARCADIS 2010a). Each well was purged until measured field parameters (temperature, specific electrical conductivity, dissolved oxygen, oxidation-reduction potential, pH, and turbidity) stabilized. **Table 9** summarizes these field-measured data. Groundwater samples were then collected; submitted to Merit, as specified in the Site's FSP (Appendix C of the RFI Work Plan [BBL 2001]); and analyzed using the procedures specified in the Site's QAPP (Appendix C of the RFI Work Plan [BBL 2001]).

For the purposes of discussion, the dissolved-phase groundwater data are presented on **Figures 8** and **9** with respect to areas designated: "Groundwater Monitoring Impact Area". These include:

- Northend: Factory 36 Area, Factory 10 Area, and Factory 81 and 85/86 Area
- Southend: Building 84/94 Area, Building 16/40 Area, Building 09 Area

3.2.3.1 Data Evaluation

The criteria for evaluation of groundwater data are based on the following assumptions:

- Land use at the Site will be restricted to non-residential use.
- Groundwater use at the Site will be restricted to sampling and other regulatory testing.
- A groundwater restrictive zone will be instituted in association of the Site, prohibiting the use of shallow groundwater as drinking water.

The laboratory analytical data for the 2013 monitoring event, as well as historical data, were, compared to following the following criteria, defined under the MDEQ Cleanup Criteria Requirements for Response Activity (December 2013):

- GSI
- Non-Residential Groundwater Volatilization to Indoor Air Inhalation (NGVIA)
- Flammability and Explosivity Screening Level (FE)

Monitoring well locations where concentrations above the MDEQ Part 201 GSI criteria were observed were evaluated to determine the relevance of the GSI pathway based on the location of the well and the potential pathway to the Flint River. The MDEQ Part 201 GSI criteria are not considered relevant for monitoring wells located in the groundwater monitoring impact areas where the wells are a significant distance to the Flint River and where outfalls for the storm sewers into which groundwater is infiltrating have been bulkheaded. Bulkheading eliminates the pathway to the Flint River via the storm sewer. The GSI pathway is relevant in bulkheaded areas of the Site where the monitoring wells are in close proximity to the Flint River (e.g., some of the monitoring wells in the Factory 84/94 and Building 09 Areas). The outfall(s) associated with the location of monitoring wells in each groundwater monitoring impact area, with dissolved-phase groundwater concentrations greater than the MDEQ Part 201 GSI criteria, are shown in the following table:

Groundwater Monitoring Impact Area	Associated Outfalls	
	Bulkheaded	**Not Bulkheaded**
Factory 36 Area	002	001, 003
Factory 10 Area	002	003
Factory 81 and 85/86 Area	NA	004, 005 (see Note 1 below)
Factory 16/40 Area	009, 010 (see Note 2 below)	NA
Factory 84/94 Area	007, 008	NA
Building 09 Area	NA	011, 012

Notes:

1 – Outfall 005 is bulkheaded upstream of the Factory 81 and 85/86 area, which has eliminated LNAPL infiltration to this sewer; however, this sewer may be allowing groundwater infiltration near the Factory 81 and 85/86 area.
2 – The Outfalls 009 and 010 storm sewers are in the process of being bulkheaded.
NA = not applicable

3.2.3.2 Summary of Results

Table 10 summarizes laboratory analytical data for the 2013 AGMP. **Appendix D** presents historical groundwater data prior to 2013. Groundwater concentrations are expressed in µg/L, unless otherwise noted. Annual groundwater sampling locations are primarily located along the downgradient Site boundary and off site, and provide an understanding of the behavior of the dissolved-phase impacts downgradient of the Site. Of the 46 monitoring wells sampled, one or more analytes were detected at concentrations exceeding MDEQ Part 201 GSI criteria in 15 of those wells. In general, monitoring well samples with analytes exceeding GSI criteria were those immediately downgradient of LNAPL areas. Concentrations above the NGVIA and FE were not detected at any monitoring wells. A discussion of dissolved-phase constituents that were observed above criteria in groundwater in the Northend and Southend is provided below.

3.2.3.2.1 Northend

Figure 8 shows monitoring wells in the Northend with concentrations greater than the MDEQ Part 201 GSI criteria. For the areas where the associated sewer outfall has been bulkheaded, the direct path to the river is considered to be incomplete, as discussed in Section 3.2.3.1.

Factory 36 Area Summary

Groundwater concentrations above the MDEQ Part 201 GSI criteria were detected at monitoring wells 36-FP1, RFI-36-08, and RFI-36-44 for select VOCs and metals, as shown on **Figure 8**.

Monitoring well 36-FP1 is located within the Site boundary in the drainage area for Outfall 002, which has been bulkheaded. Given the distance to the Flint River, the GSI pathway is not believed complete for this location. However, 36-FP1 is located near the

downgradient Site boundary, and concentrations of 1,1,1-trichloroethane (1,1,1-TCA) have increased from concentrations between 98 and 240 µg/L, prior to 2005, to 3,700 µg/L in June 2013. Monitoring well RFI-36-37 (see **Figure 8**), located sidegradient of 36-FP1 and outside of the bulkheaded area, exhibited concentrations of 1,1,1-TCA below detection and below MDEQ Part 201 GSI criteria for all other analytes. As discussed in detail below, downgradient monitoring well RFI-36-44 exceeds the GSI criterion for vinyl chloride (a degradation product of 1,1,1-TCA); however, concentrations of 1,1,1-TCA at RFI-36-44 are below its corresponding GSI criterion.

RFI-36-08 is located within the Site boundary in the drainage area for Outfall 002, which has been bulkheaded. RFI-36-08 detected benzene, ethylbenzene, and xylene at concentrations exceeding MDEQ Part 201 GSI criteria. Given the distance to the Flint River, the GSI pathway is not believed complete for this location. In addition, a review of historic data (**Appendix D**) collected from RFI-36-08 shows that concentrations of benzene, ethylbenzene, and xylene have decreased by an order of magnitude since monitoring began and toluene, which previously exceeded criteria, no longer exceed the respective criteria. In addition, historic data from downgradient monitoring well RFI-36-20 (**Appendix D**) indicates no detections of benzene, ethylbenzene, toluene, or xylene in any samples collected since 2001.

Monitoring well RFI-36-44 is located downgradient of the Site boundary within the Outfall 001 drainage area, which is not bulkheaded. Vinyl chloride is the only constituent above criteria at monitoring well RFI-36-44, and concentrations of chlorinated ethanes (1,1,1-TCA, 1,1-dichloroethane [1,1-DCA], and chloroethane) are present in groundwater at this location at concentrations above detection, but below all criteria. The limited historical dataset for monitoring well RFI-36-44 suggests that vinyl chloride appears to be increasing, ranging from below detection to 2.1 µg/L between 2002 and 2005 when the well was last sampled, to 20 µg/L in June 2013. Although the vinyl chloride concentration appears to be increasing at this location, the vinyl chloride concentration was below the reporting limit in groundwater at downgradient monitoring well RFI-36-55R (**Figure 8**), indicating groundwater impacts are limited beyond the Site boundary.

Factory 36 Area Recommendations

Continued monitoring of RFI-36-08 is recommended, although the GSI pathway is not complete. The concentrations of COCs have been fluctuating significantly, and do not appear to have stabilized. Therefore, continued monitoring is recommended until concentrations have stabilized or are decreasing.

Continued monitoring of 36-FP1 and RFI-36-44 is recommended as the concentrations of COCs at 36-FP1 are increasing and impacts appear to have migrated off site to RFI-36-44, which is located in the Outfall 001 drainage area (not bulkheaded). Therefore, these wells, as well as their downgradient monitoring points (RFI-36-37 and RFI-36-55R), will continue to be monitored.

Factory 10 Area

Monitoring wells 20-105R and RFI-10-03 detected select VOCs and metals at concentrations above MDEQ Part 201 GSI criteria. However, both of these monitoring wells are located on site in a portion of the Outfall 003 that has been bulkheaded. Also, given the distance to the Flint River, the GSI pathway is not believed complete for these locations.

A review of historic data from 20-105R and RFI-10-03 (**Appendix D**) indicates that concentrations of COCs in these wells appear to be decreasing or stable. COCs were not detected above MDEQ Part 201 GSI criteria in any monitoring wells located downgradient of the Site boundary.

Factory 10 Area Recommendations

Continued monitoring of 20-105R and RFI-10-03 is not recommended based on the following:

- Locations exceed only MDEQ Part 201 GSI criteria; however, bulkheading has been completed in this area and there is no longer a completed GSI pathway
- Concentrations of COCs appear to be decreasing or stable
- Downgradient monitoring wells do not exceed criteria

Factory 81 and 85/86 Area

Concentrations above MDEQ Part 201 GSI criteria were detected at two monitoring wells in the Factory 81 and 85/86 area: 87-FP3 and RFI-86-08R. These two monitoring wells are located upgradient of the Site boundary, and are within the Outfall 004 drainage area, which has not been bulkheaded.

At monitoring well 87-FP3, trichloroethene (TCE) and vinyl chloride were detected at concentrations similar to historical concentrations (**Appendix D**), indicating concentrations at 87-FP3 are stable. Naphthalene had not been analyzed at RFI-86-08R prior to 2013, and was detected above the GSI criterion. Concentrations of arsenic at monitoring well RFI-86-08R were above the GSI criterion during 2013 sampling, but have decreased since the last sampling event in 2003.

Monitoring wells located downgradient of 87-FP3, RFI-86-08R, and the AOI 86-1 LNAPL area do not detect any COCs above MDEQ Part 201 GSI criteria and concentrations appear to be stable based on historical results.

Please note that, as discussed in Section 3.1, GSI compliance for the Site's storm sewers is monitored through NPMP. The NPMP data collected from the Outfall 004 monitoring point and the downstream Outfall 005 monitoring point have not detected any VOCs above MDEQ Part 201 GSI criteria; however, arsenic has intermittently been detected above MDEQ Part 201 GSI criteria at Outfall 005.

Factory 81 and 85/86 Area Recommendations

Continued monitoring of 87-FP3 and RFI-86-08R, as well as their downgradient monitoring points (07-01, RFI-86-06S, RFI-02-08R, 87-FP5) is recommended to confirm that the concentrations of COCs are stabilizing or decreasing. In addition, while the Outfall 004 storm sewer is planned to be bulkheaded in this area, the direction of groundwater flow (generally to the southeast) indicates that the potential exists for infiltration of this groundwater plume into the Outfall 005 storm sewer. The Outfall 005 pathway will be investigated as part of expanded sampling being conducted as part of the NPMP.

3.2.3.2.2 Southend

In the Southend, the dissolved-phase groundwater impacts are closer to the river relative to a comparison to the Northend. Monitoring wells in the Southend of the Site with concentrations greater than the MDEQ Part 201 GSI criteria are shown on **Figure 9**. For areas where the associated sewer outfall has been bulkheaded, the direct path to the river is considered incomplete as discussed in Section 3.2.3.1; however, concentrations at downgradient locations were also reviewed to provide additional evidence that impacted groundwater is not likely affecting surface water quality. A discussion of dissolved-phase groundwater conditions in the Southend is provided below.

Factory 16/40 Area

Concentrations above MDEQ Part 201 GSI criteria were detected at two monitoring wells in the Factory 16/40 area: 40-305 and RFI-40-09. Concentrations of total cyanide are currently above the GSI criterion in monitoring well 40-305, located in the Outfall 009 storm sewer drainage area. This area is in the process of being bulkheaded, which will eliminate the direct pathway to the river. Total cyanide has decreased in comparison to concentrations recorded in 2001 and 2003 at 40-305. In addition, total cyanide concentrations are below reporting limits and/or the total cyanide criterion in monitoring wells downgradient of 40-305.

Monitoring well RFI-40-09 exhibited concentrations of benzene, arsenic, and total cyanide above MDEQ Part 201 GSI criteria. RFI-40-09 is located in the Outfall 010 drainage area and the Outfall 008 drainage area, which is downgradient. The Outfall 008 storm sewer has been bulkheaded, eliminating this pathway to the river. Historical data from RFI-40-09 (**Appendix D**) indicate that concentrations of benzene, arsenic, and cyanide are increasing. Samples from monitoring wells located at the downgradient Site boundary (in the Factory 84/94 area) do not detect benzene; however, as discussed in further detail below, select well samples do exceed MDEQ Part 201 GSI criteria for arsenic and cyanide.

Please note that the sample collected from 40-304 (the downgradient monitoring point for the former Building 40 Tunnel IM) did not detect PCBs, consistent with historical data.

Factory 16/40 Area Recommendations

Continued monitoring of RFI-40-09 is recommended to continue monitoring concentrations of COCs. Additional groundwater monitoring will be completed along the downgradient Site boundary as discussed below.

Factory 84/94 Area

Samples collected from RFI-09-48, RFI-84-06R, RFI-84-10D, RFI-84-10S, and RFI-94-02R exhibited concentrations of dissolved-phase constituents above MDEQ Part 201 GSI criteria. These wells are located in Outfall 007 and Outfall 008 storm sewer drainage areas, which have been bulkheaded, eliminating the pathway to the Flint River via these storm sewers. However, these monitoring well locations (**Figure 9**) are in close proximity to the Flint River; therefore, direct discharge of impacted groundwater may be a concern.

At monitoring well RFI-84-06R, total cyanide was detected at a concentration of 96 µg/L, which exceeds the GSI criterion (5.2 µg/L); however, concentrations since 2003 appear stable. Furthermore, this well is approximately 300 feet from the Flint River. It is likely that the concentration of the groundwater in this area would decrease to a level below the GSI criterion for cyanide when it reaches the river. However, even if the cyanide concentrations remained elevated above the GSI criterion at the river, a mixing zone remedy would be appropriate given the relatively low concentration of cyanide relative to the GSI criterion.

Monitoring wells RFI-84-10S and RFI-84-10D are paired shallow and deep wells, respectively. Arsenic was detected at concentrations of 11 µg/L (RFI-84-10S) and 19 µg/L (RFI-84-10D), which exceeds the GSI criterion (10 µg/L). In addition, vinyl chloride was also detected at a concentration of 19 µg/L (RFI-84-10D), which exceeds the GSI criterion (13 µg/L). Historical data from downgradient monitoring wells RFI-17-02D and RFI-84-09D (**Appendix D**) indicate no detections of vinyl chloride in the samples

collected in 2011 or 2012. Previous samples collected from 2005 to 2010 detected vinyl chloride at a maximum concentration of 3 µg/L.

Monitoring well RFI-09-48 is located within approximately 50 feet of the Flint River. Arsenic was detected at a concentration of 24 µg/L at RFI-09-48, which exceeds the GSI criterion (10 µg/L); therefore, there may be a direct pathway for arsenic-impacted groundwater to discharge to the Flint River in this area. RFI-09-48 was last sampled in 2003 and detected arsenic at a concentration of 49 µg/L; therefore, the concentration of arsenic appears to be decreasing. Furthermore, given the relatively low arsenic concentration exhibited at RFI-09-48 relative to the GSI criterion, it is likely that, if required, a mixing zone remedy would be appropriate in this case.

At monitoring well RFI-94-02R, TCE was detected at a concentration of 1,014 µg/L, which exceeds the GSI criterion for TCE of 200 µg/L. RFI-94-02R is located approximately 200 feet upgradient of the Flint River. The historic TCE concentrations ranged from 510 to 560 µg/L in 2003 to 950 µg/L in 2004, indicating that the concentrations may be stabilizing. Downgradient monitoring wells RFI-94-09, RFI-94-10, and RFI-94-11 are located between RFI-94-02 and the Flint River. Historic results from RFI-94-09 (sampled in 2003 and 2005) and RFI-94-11 (sampled 10 times between 2005 and 2012) did not detect TCE. Historic samples collected from RFI-94-10 (collected in 2003, 2004, and 2011) detected TCE at concentrations ranging from 1 to 3 µg/L), with the lowest concentration detected in the 2011 sample.

A lateral to the Outfall 006 storm sewer is located between RFI-94-02 and the downgradient monitoring wells. Because this lateral could represent a migration pathway, the historical NPMP data from Outfall 006 (**Appendix C**) were reviewed. There were no detections of TCE above its MDEQ Part 201 GSI criterion in the Outfall 006 NPMP data.

Factory 84/94 Area Recommendations

Continued monitoring of RFI-09-48, RFI-84-06R, RFI-94-02, and RFI-94-10 is recommended to continue to monitor COC concentrations.

The exceedances detected at monitoring wells RFI-84-10S and RFI-84-10D will be monitored using downgradient monitoring wells RFI-17-02, RFI-17-02D, RFI-84-09S, and RFI-82-09D, which are located between RFI-84-10S/10D and the Flint River.

Building 09 Area

With the exception of monitoring well RFI-09-55S, COC concentrations were below MDEQ Part 201 GSI criteria for all monitoring wells within the Building 09 area. At monitoring well RFI-09-55S, concentrations of 1,2,4-trimethylbenzene (1,2,4-TMB) and ethylbenzene were detected above their respective MDEQ Part 201 GSI criteria. 1,2,4-TMB has not been previously analyzed at RFI-09-55S. Ethylbenzene was analyzed once, in 2005, and concentrations have increased slightly since the last sampling event. Downgradient of monitoring well RFI-09-55S, concentrations of 1,2,4-TMB and ethylbenzene at monitoring well RFI-09-14 were below detection, when last sampled in 2010. Monitoring well RFI-09-55S is adjacent to the Outfall 011 storm sewer; therefore, there is a relatively high likelihood that the groundwater near this well is infiltrating the storm sewer. Previous NPMP sampling at the river in the Outfall 011 sewer has demonstrated no impacts to the water discharging there. Therefore, while the GSI pathway here may be complete, there is no measureable impact on surface water due to the VOCs found in this monitoring well.

Building 09 Area Recommendations

Continued monitoring of RFI-09-08, RFI-09-44, and RFI-09-55S are recommended to continue to monitor COC concentrations downgradient of the AOI 09-B LNAPL Area.

3.2.3.3 Response Plan

Based on the results of the 2013 monitoring and the revised evaluation criteria outlined Section 3.2.3.1, the 2014 groundwater monitoring plan was developed. In addition to the monitoring locations discussed in Section 3.2.3.2, proposed sampling locations were selected to monitor concentrations downgradient of LNAPL areas at the Site and at the Site boundaries, particularly boundaries that are located adjacent to the Flint River. The proposed groundwater monitoring plan, including analytical

parameters and sampling rationale for each monitoring location, is presented in **Table 11**.

The objectives of the groundwater monitoring plan for 2014, and future events, are to achieve the following:

- Collect sufficient data points for statistical analysis to be completed at key monitoring wells to understand long-term concentration trends, dissolved-phase plume stability, and vapor phase evaluation.
- Monitor groundwater concentrations along the Site boundary.
- Evaluate groundwater conditions where MDEQ Part 201 GSI criteria are exceeded in areas adjacent to the Flint River.

In the Northend of the Site, the primary GSI pathway is via the Site storm sewers. Due to the significant distance to the Flint River, direct discharge is likely incomplete. In the Southend of the Site, the Factory 84/94 area is located adjacent to the Flint River; therefore, the direct discharge of groundwater to the river will also be monitored, in addition to the storm sewer pathway. In drainage areas where the storm sewers have been bulkheaded, groundwater sampling is only recommended if the concentrations show an increasing trend and/or the impacts extend off site. At drainage areas where bulkheading has not been completed, the program will continue to include monitoring locations where the concentrations of dissolved-phase constituents are above MDEQ Part 201 GSI criteria.

In the event that a proposed monitoring well is unable to be sampled, a suitable replacement well will be identified and sampled in its place, if possible.

Table 11 also discusses sampling locations that have been eliminated from the sampling program.

4. Soil Corrective Measures

4.1 Off-Site Soil Excavation Activities

During the RCRA facility investigation (RFI) activities, lead- and benzo(a)pyrene-impacted soils were identified in the shallow soils located at AOI 09-A east and southeast of the Building 09 footprint, as well as on the adjacent CSX property. Per the Final Decision for the Southend of the Site (USEPA 2010), the selected corrective measure to address off-site soil contamination is to excavate contaminated soil at the CSX railroad property.

4.1.1 Summary of Field Activities

Soil excavation activities were performed on CSX property located adjacent to AOI-09A in September and October 2013. The objective of the excavation activities was to remove lead- and benzo(a)pyrene-impacted soils above MDEQ Part 201 Non-Residential Direct Contact Criteria from the CSX property. The excavation activities were conducted in accordance with the CMI Work Plan (ARCADIS 2010), the Final Decision (USEPA 2010), and the AOI-09-A Impacted Soil Removal Work Plan (ARCADIS 2012a), which is included in **Appendix E**.

The excavation limits and confirmation sample locations for the benzo(a)pyrene and lead soil excavations are shown on **Figures 10** and **11**, respectively. Once the initial excavation limits were reached, floor and sidewall soil confirmation samples were collected and submitted to Merit for analysis. Soil confirmation samples from the lead soil and benzo(a)pyrene excavations were analyzed for lead and semivolatile organic compounds (SVOCs), respectively. Additional step-out excavations and confirmation sampling were completed in areas where the initial confirmation samples exceeded cleanup criteria as indicated on **Figures 10** and **11**. Four step-out excavations were completed at the lead soil excavation and two step-out excavations were completed at the benzo(a)pyrene excavation to address the sample locations that exceeded criteria. The size of the step-outs varied based on field observations.

Upon verification that the confirmation samples were below criteria, the excavations were backfilled with clean Class II sand to a depth of 6 inches below grade. The Class

II sand was installed and compacted in 8-inch lifts, and was tested by an independent, third party compaction testing firm to ensure 95% maximum density was achieved. The top 6 inches was backfilled with clean topsoil to grade, and all disturbed areas were seeded to re-establish vegetation.

Three hundred forty-two tons of lead-impacted soil and 127 tons of benzo(a)pyrene-impacted soil were removed from CSX property. Lead-impacted soil was disposed at the EQ Detroit, Inc. disposal facility located in Detroit, Michigan. Benzo(a)pyrene-impacted soil was disposed at the Waste Management, Inc. disposal facility located in Lennon, Michigan.

A summary of the lead soil excavation and benzo(a)pyrene soil confirmation sample analytical results are presented in **Tables 12** and **13**, respectively.

4.2 **Select Surface Covers**

4.2.1 Select Surface Cover Installation

In 2013, select surface covers were installed in the Southend of the Site (AOI-29-A, AOI-12-A, AOI-02-C, AOI-09-A, AOI-09-B [north], and AOI-09-B [south]) in accordance with the *Select Surface Cover Work Plan* (ARCADIS 2012c; **Appendix F**). These areas are referred to collectively herein as the areas requiring surface cover (ARSCs). **Figures 12** and **13** depict locations of the ARSCs.

Prior to installation of additional select surface cover measures, the ARSCs consisted of a combination of pavement, concrete, and/or vegetation. Portions of these ARSCs were vegetated or contained concrete and/or asphalt that had become compromised and subsurface soil was exposed. Additional surface cover was installed to address these areas.

In May 2013, additional surface cover was installed at AOI-12-A, AOI-29-A, and AOI-02-C. In September and October 2013, additional surface cover was installed at AOI-09-A, AOI-09-B (north), and AOI-09-B (south). In general, surface cover installation activities included clearing and grubbing of vegetation, monitoring well framing, manhole capping, installation of non-woven 8-ounce per square foot polypropylene

material and installation of a 6-inch-thick minimum crushed natural stone over top. Please refer to **Appendix F** for additional details regarding the installation of select surface cover in these areas.

4.2.2 Maintenance of Select Surface Covers

Five AOIs (AOI Group 02-C, AOI Group 12-A, AOI Group 29-A, AOI Group 09-A, and AOI Group 09-B) contain six areas where surface cover is inspected and maintained. The baseline conditions of these areas were photographed and visually inspected in July 2010, and each was inspected quarterly. In September 2013, inspections were revised to a semi-annual basis in accordance with the *Select Surface Cover Work Plan* (ARCADIS 2012c; **Appendix F**). As such, inspections for 2013 were performed in March, June, and September. During each inspection, the condition of cover was inspected and documented in an inspection log. Documented items include the type of cover (e.g., concrete, stone, vegetation), the condition of concrete or asphalt cover (good, fair, poor), and whether or not conditions of the cover have changed since the last inspection date. Photos of each inspection area are also included with the inspection log. **Appendix F** includes the inspection logs.

5. Storm Sewers

5.1 Storm Sewer Studies

Absorbent boom studies were conducted in the on-site storm sewers for Outfall 003 to identify areas of potential oil infiltration. The installed absorbent booms were monitored weekly for oil saturation. Upon review of the observations, additional booms were installed upstream or downstream to aid in determining locations of infiltration. Based on the results of the Outfall 003 boom study, evaluation of Site data and design activities for minimizing oil leaving the Site in the line leading to Outfall 003 will be conducted in 2014.

5.1.1 Sewer Video Inspection

In June 2013 and November 2013, storm sewer closed circuit television (CCTV) investigation activities were conducted in the Outfalls 002, 003, and 013 storm sewers to inspect the integrity of the piping, determine size and construction material of piping, determine water flow, and identify areas of staining and potential oil infiltration. Outfall 002 was inspected from the Site boundary where a bulkhead had been previously installed, eliminating Site drainage to the discharge point at the Flint River. Outfall 003 was inspected along areas where LNAPL infiltration was potentially occurring. Outfall 013 was inspected along the main sewer line to verify integrity for the potential Outfall 004 reroute. The results of these investigations can be found in **Appendix G**.

Upon evaluation of the storm sewer CCTV investigation videos, some sections of storm sewer piping were observed to be damaged or cracked with some groundwater infiltration and potential staining. These areas will be evaluated and activities for minimizing oil leaving the Site in the line leading to Outfalls 002, 003, and 013 will be conducted in 2014.

5.1.2 Outfall 004 Reroute Feasibility Study

While assessing remedy options for the LNAPL areas infiltrating the Outfall 004 storm sewer, ARCADIS identified the potential for rerouting Outfall 004's flow upstream of the Site into the Outfall 013 storm sewer as shown on **Figure 14**.

A feasibility study, including an assessment of the existing sewer capacity, hydraulic modeling of the drainage system, and monitoring flow through the systems was conducted. Multiple meetings with the City of Flint were held to discuss their concerns and ensure the necessary information and standard requirements. The *Outfall 004 Preliminary Evaluation Memo* (ARCADIS 2013f; **Appendix H**) was provided to the City of Flint on May 13, 2013. The *Outfall 004 Flow Monitoring Memo* (ARCADIS 2014; **Appendix H**) was submitted to the City of Flint on January 30, 2014.

5.2 Storm Sewer Bulkheading Activities

Bulkheading activities were performed at the Site in February and March 2013 to decrease or eliminate LNAPL infiltration to select on-site storm sewers. The field activities were conducted in accordance with the *Outfall 002 and 005 Storm Sewer Bulkheading Work Plan* (ARCADIS, 2012), *Outfall 002 and 005 Storm Sewer Bulkheading Work Plan – Modification to Outfall 005 Bulkhead Location* (ARCADIS, 2012), and *Outfall 002 and 005 Storm Sewer Bulkheading Work Plan: Addendum No. 1 – Outfall 003 and 007 Storm Sewer Bulkheading* (ARCADIS, 2012) approved by the USEPA on November 9, 2012, December 17, 2012, and December 17, 2012, respectively. **Appendix I** presents the work plans and construction drawings.

The bulkheading/plug locations were selected based on boom studies completed during 2011 and 2012 along Outfalls 002, 003, and 005. The boom studies identified locations where oil was infiltrating the storm sewers and bulkhead or plug locations were selected to decrease/eliminate oil contributions to the outfalls. In addition to the bulkheads/plugs installed at Outfalls 002, 003, and 005 to minimize oil infiltration, a bulkhead was also installed at Outfall 007. The Outfall 007 bulkhead was installed to eliminate the GSI pathway based on exceedances detected during NPMP sampling.

Figures 15 and **16** present the bulkhead and plug locations. The bulkheads completed at Outfalls 002 and 007 eliminated the Site's contribution to the storm sewers via bulkheading at the downstream Site boundary. Additional bulkheads were installed in the on-site Outfall 002 storm sewer system to potentially collect infiltrating oil. As Outfall 003 drains upstream off-site properties, only lateral lines were bulkheaded and options for addressing the main sewers are being developed. Most of the Site's

contribution to Outfall 005 has been eliminated, only leaving the drainage for Leith Street and the drainage from an adjacent property owner.

6. Non-Corrective Measures Implementation Activity Summary

6.1 Outfall Maintenance

Oil absorbent booms and oil containment booms were maintained throughout the year at storm sewer Outfalls 002, 003, 004, and 005 to contain periodic oil sheens at the Flint River. The outfall containment areas were regularly inspected for oil/debris accumulation, absorbent boom saturation, and that the containment booms were in good condition and functioning properly. Based on visual observations, the booms were changed on an as-needed basis to confirm proper working order. In addition, accumulated oil and debris in the outfall containment areas were cleaned via vacuum extraction and/or oil absorbent materials on an as-needed basis to prevent potential environmental releases.

Outfall inspections were conducted on a weekly basis, at a minimum, and as needed per weather predictions and measured rainfall. In 2013, sections of on-site Outfalls 002 and 005 storm sewers were bulkheaded to reduce the amount of LNAPL contribution to the outfalls. Since the installation of bulkheads, amount of oil identified at the outfalls during inspections has decreased noticeably at Outfall 002. Refer to Section 5.2 for details on the Outfalls 002 and 005 storm sewer bulkheading activities.

6.2 Oil Interceptor #2 Maintenance

Oil Interceptor #2 was operated throughout the year by utilizing two rows of oil absorbent booms spanned within the unit perpendicular to the direction of flow. The booms were inspected on a weekly basis for oil/debris accumulation, absorbent boom saturation, and that the absorbent booms were in good condition and functioning properly. Based on visual observations, the booms were changed and debris removed on an as-needed basis to confirm proper working order. In 2013, two maintenance events were performed on Interceptor #2, resulting in the collection and disposal of 21 drums (an estimated 1,640 kilograms) of Toxic Substances Control Act (TSCA) PCB waste.

6.3 Outfall 003/004 Stormwater Diversion and Treatment System

The Outfall 003/004 System serves to remove oils and sediment in the Outfalls 003 and 004 storm sewers prior to reaching the Flint River. The Outfall 003/004 System was operated throughout the year, and was maintained at least once per week. Water levels and oil levels were actively monitored in vaults, BaySeparator™ manholes, and the OWS. Stormwater downstream of the Outfall 003/004 System was monitored in manholes, as well as Flint River outfalls, to check for accumulating oils. Routine maintenance events were scheduled based on field observations and levels, including removal of debris and trash racks from the diversion structures, jetting of high-density polyethylene piping to clear blockage, and a cleaning event of the BaySeparator™ system. The BaySeparator™ cleaning event included removal of 5,577 gallons (TSCA PCBs) and 15,542 gallons (non-TSCA and non-hazardous) oil, water, and sediment utilizing vacuum trucks and power washing the surfaces to ensure all material was removed. Oil, water, and sediment containing TSCA PCBs were transported to the Port Arthur TSDF Incineration Service Center in Port Arthur, Texas for disposal. The remaining oil, water, and sediment were determined to be non-TSCA and non-hazardous and were transported to EQ Detroit, Inc. in Detroit, Michigan for disposal.

6.4 RCRA Waste Management Unit Closures

Closure activities were performed in 2012 for 10 historic RCRA waste management units (WMUs) historically present at the Site. On January 15, 2013, the MDEQ granted closure approval for seven of the 10 WMUs, and deferred follow-up activities for the remaining three WMUs (#3, #7, and #10) to be addressed under RCRA Corrective Action. **Appendix J** presents the MDEQ correspondence regarding closure status of these WMUs.

6.5 Northern Parcel Soil Investigation

The Northern Parcel area is the portion of the Site located north of the former Factory 36 Area and includes the former Factory 38 building footprint. In October 2012 and March through June 2013, soil and groundwater sampling activities were performed at the Northern Parcel to assess Site conditions.

The Northern Parcel investigation activities were completed as outlined in the *Northern Parcel Sampling Results Memorandum* (ARCADIS 2013g; **Appendix K**).

6.6 Former Factory 31 Basement Investigation

The former Factory 31 basement investigation was implemented in response to a 2010 letter received (via the MDEQ and USEPA) from a former GMC employee who claimed that 25 to 30 full drums of various oils and cleaners were dumped in the former Factory 31 Heat Treat basement as it was being backfilled in 1982. The former Factory 31 Heat Treat basement is located beneath the former Factory 83/84 (also known as Factory 31) Area, which is located in the Northend of the Site, just north of Leith Street.

In September 2012, the former Factory 31 basement area was investigated for evidence of drums. Based on impact (strong odor and sheen) noted at one of the initial soil boring locations (F31_Boring 6), four additional soil borings were installed in April 2013. These additional borings were installed approximately 10 feet north, south, east, and west of F31_Boring 6.

Four borings (F31_Boring 6-1, F31_Boring 6-2, F31_Boring 6-3, and F31_Boring 6-4) were completed to depths ranging from 6.5 to 10 feet bgs. Refusal was encountered at F31-Boring 6-3 and F31-Boring 6-4 at depths of 7 feet bgs. At boring F31_Boring 6, a strong odor and sheen were noted just beneath the concrete slab. Non-aqueous phase liquid was noted in F31_Boring 6-1 at 6 feet bgs. Minimal odors were noted in the soil removed from F31_Boring 4, F31_Boring 6-1, F31_Boring 6-2, and F31_Boring 6-4. Black sand was noted in borings F31_Boring 6-1, F31_Boring 6-2, F31_Boring 6-3, and F31_Boring 6-4. Although photoionization detector readings were zero, one soil sample was collected from each of the four borings, and was submitted to the laboratory for analysis of VOCs and SVOCs. No VOCs or SVOCs were detected above applicable criteria in the soil samples; however, laboratory qualifiers indicate that elevated reporting limits were used due to matrix interference. No evidence of impacts or drums was encountered during the investigation.

6.7 AOI 83/84-3 Lead Soil Delineation

Lead-impacted soils, with mean lead concentrations in surface and subsurface soils exceeding the Part 201 Non-residential Direct Contact (NDC) criterion of 900 milligrams per kilogram, were identified at AOI 83/84-3 during the RFI. However, the extent of the lead-impacted soils could not be delineated at the time due to the presence of process-related equipment. In 2012, following the demolition of Factory 83/84, delineation of the lead-impacted soils was initially conducted. Additional delineation samples were collected in April 2013 to complete the delineation.

The results of this investigation are presented in further detail in Appendix Q of the *2014 Remedy Recommendation Report* (targeted for submission to USEPA by end of August 20142014).

6.8 Outfall 002 Passive Recovery Trench

As part of the storm sewer bulkheading activities discussed in Section 5.2 bulkheads were installed at Manholes 2-18 and 2-21 to create two closed sections of pipe. These sections were selected based on the proximity of a known LNAPL area to the pipe, as well as the results of previous boom studies that indicated the LNAPL was infiltrating into these areas. An operation, monitoring, and maintenance (OMM) plan was established that included biweekly and as-needed gauging and inspections of the pipe sections and nearby groundwater monitoring wells. The purpose of the inspections was to identify if LNAPL recovery would be possible from the trench, and at what rate the LNAPL was infiltrating for recovery. During the initial phase of OMM, LNAPL infiltration was observed as indicated in **Table 14**. Based on the amount of LNAPL observed, either 2-gallon or 6-gallon capacity oil-only absorbent booms were installed on June 26, 2013 in order to absorb the observed LNAPL, and to gauge the amount of LNAPL collected. The saturation of the booms was monitored, and the booms were changed out on an as-needed basis. The results of the inspection have shown that the booms can adequately manage the amount of LNAPL infiltration observed to date.

The section of trench between Manholes 2-18 and 2-21 (**Figure 17**) observed steady LNAPL accumulation during the OMM phase. Higher LNAPL recovery rates were

observed during July and December 2013, with 9 gallons of LNAPL removed during the OMM period.

The section of trench upstream of Manhole 2-21 has seen intermittent LNAPL accumulation during the OMM phase. Little to no additional LNAPL accumulation was observed during September and October 2013, while the highest LNAPL recovery was observed during January, with 4.5 gallons of LNAPL removed during the OMM period.

A review of the groundwater elevations observed in monitoring well 20-105R did not provide a correlation between groundwater elevation and LNAPL accumulation.

7. References

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ARCADIS

Tables

Table 1. **Natural Source Zone Depletion - Northend Results, 2013 CMI Annual Report**
RACER Trust, Buick City Site, Flint, Michigan

AOI	Nearest well	Sample	Eq. f.f. NAPL Loss Rate (gallons/acre.yr)
AOI 36-2	RFI-36-42	FM-CO2-R4-01	3,217
AOI 81-2	East side of plume	FM-CO2-R4-02	3,448
AOI 81-2	West side of plume	FM-CO2-R4-03	176
AOI 03-1	03-03R	FM-CO2-R4-04	396
AOI 05-1/05-5	43-162	FM-CO2-R4-05	797
AOI 05-1/05-5	43-163	FM-CO2-R4-06	664
AOI 86-1	RFI-86-03	FM-CO2-R4-07	397
AOI 86-1	RFI-86-02	FM-CO2-R4-08	516

NOTES:
The flux equivalence is 1 microMole/(m^2 . S) equals 627 gallons/(acre.yr). This assumes a hydrocarbon density of 0.75 g/mL and a formula of C8H18.

Table 2. LNAPL Transmissivity Evaluation and Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Test Well ID	Test	Date	Drawdown Adjustment (feet)	Time Cut (minutes)	Initial LNAPL Thickness (feet)	Test Duration (minutes)	Final LNAPL Thickness (feet)	LNAPL Recovery (%)	LNAPL Transmissivity (feet^2/day)	
									Bouwer & Rice	Cooper & Jacob / Jacob & Lohman
Northend										
36-FP7	1	4/25/2013	0	9.5	1.49	1280	2.28	153%	**0.2**	--
MW-36-06	1	8/8/2013	0	39	5.18	1532	2.26	44%	0.03	
20-FP7	1	4/25/2013	0	53	0.52	1418	0.48	92%	--	**1.00**
MW-10-03	1	8/7/2013	0	3.0	3.11	21	0.36	12%	**0.3**	
43-162	1	8/7/2013	--	--	2.58	2584	2.89	112%	NA	
43-165	1	4/25/2013	--	--	0.39	1149	0.41	105%	NA	
MW-05-04	1	8/7/2013	0.05	3	1.14	2834	0.69	61%	0.05	
70-107R	1	4/26/2013	0	30	4.25	156	1.32	31%	**0.2**	--
MW-83/84-7	1	8/6/2013	0.09	26	2.18	1777	1.35	62%	**1.6**	
MW-83/84-10	1	8/6/2013	0	45	6.68	3952	4.89	73%	0.03	
MW-83/84-19	1	8/6/2013	0	28	2.85	4132	3.2	112%	0.08	
RFI-83/84-07	1	4/24/2013	0	43	2.74	2850	1.82	66%	0.03	--
RFI-83/84-27	1	4/24/2013	0	25	2.75	2748	0.56	20%	0.02	--
RFI-83/84-53	1	4/24/2013	0	15	2.6	2607	2.41	93%	**4.1**	--
Southend										
RFI-02-14	1	3/27/2012	--	--	--	--	--		NA	
RFI-09-40R	1	12/20/2011	0.10	15	1.19	1560	0.36	30%	**0.7**	--
	2	12/21/2011	--	--	1.19	1560	1.57	132%	NA	
	3	3/29/2012	0	12	2.64	179	0.43	16%	0.01	--
	4	6/11/2012	--	--	1.81	1530	1.11	61%	NA	
	5	9/21/2012	0	50	1.81	131	0.49	27%	0.03	--
31-7	1	12/20/2011	--	--	1.19	1560	0.36	30%	NA	
	2	12/22/2011	--	--	0.37	360	0.27	73%	NA	
RFI-12-09R	1	3/29/2012	0	7	0.58	330	0.56	97%	0.08	--
RFI-12-11D	1	12/19/2011	--	--	1.24	1740	0.52	42%	NA	
	2	12/21/2011	--	--	0.52	1740	0.25	48%	NA	
LIF-12-018	1	3/28/2012	0	12	3.11	172	1.21	39%	0.08	--
	2	6/11/2012	--	--	1.66	1620	1.09	66%	NA	
	3	9/19/2012	0	4	1.62	3036	0.85	52%	0.08	--
RFI-12-23	1	12/19/2011	0	2	3.55	1835	2.72	77%	**0.2**	--
	2	12/21/2011	0	12	2.82	1530	1.93	68%	**0.2**	--
	3	3/28/2012	0	65	2.51	387	1.86	74%	**0.4**	--
	4	6/11/2012	0	9	1.81	77	0.9	50%	**0.2**	
	5	9/19/2012	0	41	1.68	2998	1.05	63%	**0.1**	--
RFI-12-35	1	12/19/2011	0	2	1.45	1783	0.99	68%	0.06	--
	2	12/21/2011	0	5	1.11	1670	0.47	42%	0.09	--
	3	9/20/2012	0	31	0.83	1668	0.5	60%	0.01	--
RFI-16-08	1	12/20/2011	--	--	0.15	1800	0.14	93%	NA	
RFI_40-02R	1	12/20/2011	--	--	1.87	1860	0.34	18%	NA	
	2	12/22/2011	--	--	0.35	180	0.13	37%	NA	
RFI-40-7R2	1	12/19/2011	0.26	4.2	3.39	1543	3.54	104%	**1.6**	--
	2	12/21/2011	0	12.2	3.98	1810	3.45	87%	**1.3**	--
	3	3/27/2012	0.18	18	2.75	150	1.05	38%	**0.6**	--
	4	6/12/2012	0.30	37	3.01	248	2.03	67%	**1.9**	--
	5	9/20/2012	0	28	3.7	1563	3.5	95%	**0.5**	--

General Notes:

Bold Exceeds 0.1 to 0.8 ft^2/day lower criterion range to produce sufficient LNAPL recoverability (ITRC 2009a).

Acronyms and Abbreviations:

0 = LNAPL transmissivity is assumed to be zero due to negligible LNAPL thickness in well at test commencement.

ft. = feet

LNAPL = light non-aqueous phase liquid

min = minute

NA = not analyzed for various reasons including poor LNAPL discharge from formation to well, minimal LNAPL drawdown, or non-equilibrium conditions at test commencement.

Table 3. AOI 09-B System Vapor Phase and LNAPL End Point Tracking, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Month	Hours of Operation Per Month	Cumulative Hours of Operation	Water Volume Discharged (gallons)	Cumulative Volume GW Treated (gallons)	SVE Vapor Phase Recovered Per Month (lbs)	Cumulative SVE Vapor Phase Recovered (lbs)	LNAPL Recovered Per Month (lbs)	Cumulative LNAPL Recovered (lbs)	LNAPL Recovered Per Month (gallons)	Cumulative LNAPL Recovered (gallons)	Average Daily Recovery to Total Recovery Ratio (%)
4/30/2013	125	125	54,685.53	54,685.53	879	879	346	346	55	55	NA
5/31/2013	553	678	102,844.76	157,530.29	49	929	32	378	5	60	0.27%
6/30/2013	306	984	120,353.95	277,884.24	54	983	274	653	44	104	1.57%
7/31/2013	396	1380	87,373.73	365,257.97	463	1446	130	783	21	124	1.61%
8/31/2013	429	1809	116,596.00	481,853.97	99	1545	34	817	5	130	0.32%
9/30/2013	596	2406	85,658.34	567,512.31	101	1646	9	826	1	131	0.18%
10/31/2013	646	3052	67,284.00	634,796.31	232	1878	0	826	0	131	0.32%
11/30/2013	506	3558	64,315.13	699,111.44	36	1914	8.73	834	1.4	133	0.08%

Acronyms and Abbreviations:

NA	Criterion or value is not available or, in the case of background and CAS numbers, not applicable.
SVE	Soil Vapor Extraction
LNAPL	Lighter-than-water, non-aqueous phase liquid

Table 4. Currently Approved NPMP Sampling Program and Rationale, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall	Monitoring Point	Current Frequency	Sample Type	Analytes	Sampling Rationale
001	MP001	Monthly	Dry weather - Grab	antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, cyanide, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, zinc	Metals and cyanide will continue to be sampled until an upgradient sample can be collected to confirm the source of metals is from sources located upgradient of the Site.
002	MP002	Monthly	Dry weather - Grab	arsenic, chromium, copper, cyanide, mercury, selenium, silver	Rationale 5.
		Quarterly	Dry weather - Grab	lead, vanadium	Rationale 4.
		Annually	Dry weather - Grab	VOC (MDEQ List), barium, cadmium, manganese, zinc	Rationale 2.
003/004	MP003	Monthly	Dry weather - Grab	antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, cyanide, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, zinc	Metals and cyanide will continue to be sampled until an upgradient sample can be collected to confirm the source of metals is from sources located upgradient of the Site.
		Monthly	Dry weather - 24-hr Composite	PCB	Requested by the USEPA. Weekly dry weather PCB sampling is also required by the NPDES permit.
005	MP005	Monthly	Dry weather - Grab	arsenic, copper, lead, mercury, silver, zinc	Rationale 5.
		Monthly	Dry weather - 24-hr Composite	PCB	Requested by USEPA.
		Quarterly	Dry weather - Grab	chromium, nickel	Rationale 4.
		Semi-annually	Dry weather - Grab	manganese	Rationale 3.
		Annually	Dry weather - Grab	cadmium, vanadium	Rationale 2.
006	MP006	Monthly	Dry weather - Grab	mercury	Rationale 5.
		Quarterly	Dry weather - Grab	chromium, copper	Rationale 4.
		Semi-annually	Dry weather - Grab	arsenic, lead	Rationale 3.
007	MP007	Monthly	Dry weather - Grab	mercury	Rationale 5.
		Semi-annually	Dry weather - Grab	chromium, lead	Rationale 3.
		Annually	Dry weather - Grab	arsenic	Rationale 2.
009	MP009	Monthly	Dry weather - Grab	arsenic, cadmium, chromium, copper, cyanide, lead, manganese, mercury, vanadium, zinc	Rationale 5.
		Annually	Dry weather - Grab	barium, thallium	Rationale 2.
010	MP010	Monthly	Dry weather - Grab	arsenic, cadmium, chromium, copper, cyanide, lead, manganese, mercury, zinc	Rationale 5.
		Quarterly	Dry weather - Grab	barium	Rationale 4.
		Semi-annually	Dry weather - Grab	nickel, vanadium	Rationale 3.
011	MP011	Quarterly	Dry weather - Grab	copper, mercury	Rationale 4.
		Semi-annually	Dry weather - Grab	lead	Rationale 3.
		Annually	Dry weather - Grab	vanadium	Rationale 2.
013	MP013	Monthly	Dry weather - Grab	arsenic, chromium, copper, cyanide, lead, mercury	Rationale 5.
		Semi-annually	Dry weather - Grab	zinc	Rationale 3.
		Annually	Dry weather - Grab	manganese, vanadium	Rationale 2.

Rationale 1 - If an analyte has not been detected in the past 12 months or has only been detected at concentrations that are less than 25% of the GSI criteria then no additional sampling of that analyte is recommended.
Rationale 2 - If in the past 12 months an analyte was detected in one or more samples at a concentration greater than 25% of GSI criteria then annual sampling is recommended for that analyte.
Rationale 3 - If in the past 12 months one or more samples detected an analyte at a concentration greater than 25% of GSI criteria and the data collected to date show an increasing trend then semi-annual sampling is recommended for that analyte.

Rationale 4 - If in the past 12 months one or more samples detected an analyte at a concentration greater than 75% of GSI criteria then quarterly sampling is recommended for that analyte.

Rationale 5 - If in the past 12 months one or more samples detected an analyte at a concentration exceeding the GSI criteria then continued monthly sampling is recommended.

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 001 MP001 01/23/13	Outfall 001 MP001 02/22/13	Outfall 001 MP001 03/14/13	Outfall 001 MP001 04/30/13	Outfall 001 MP001 05/30/13	Outfall 001 MP001 07/01/13	Outfall 001 MP001 10/25/13	Outfall 001 MP001 11/20/13	Outfall 002 MP002 01/23/13	Outfall 002 MP002 02/22/13	Outfall 002 MP002 03/14/13
VOC													
1,1,1,2-Tetrachloroethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,1,1-Trichloroethane	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3 [3]	NA	NA
1,1,2,2-Tetrachloroethane	78 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,1,2-Trichloroethane	330 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,1-Dichloroethane	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	9 [10]	NA	NA
1,1-Dichloroethene	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2,3-Trichlorobenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
1,2,3-Trichloropropane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2,4-Trichlorobenzene	99 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
1,2,4-Trimethylbenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2-Dibromo-3-chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
1,2-Dibromoethane	5.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2-Dichlorobenzene	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2-Dichloroethane	360 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,2-Dichloropropane	230 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,3,5-Trimethylbenzene	45	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,3-Dichlorobenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
1,4-Dichlorobenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
2-Butanone	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<25 [<25]	NA	NA
2-Hexanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<50 [<50]	NA	NA
2-Methylnaphthalene	19	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
4-Methyl-2-pentanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<50 [<50]	NA	NA
Acetone	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<50 [<50]	NA	NA
Acrylonitrile	2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<2 [<2]	NA	NA
Benzene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Bromobenzene	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Bromochloromethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Bromodichloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Bromoform	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Bromomethane	35	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Carbon Disulfide	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Carbon Tetrachloride	45 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Chlorobenzene	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Chloroethane	1,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	12 [12]	NA	NA
Chloroform	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Chloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
cis-1,2-Dichloroethene	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 [21]	NA	NA
cis-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Dibromochloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Dibromomethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Dichlorodifluoromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Diethyl ether	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<10 [<10]	NA	NA
Ethylbenzene	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Hexachloroethane	6.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Iodomethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Isopropylbenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
m&p-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<2 [<2]	NA	NA
Methyl tert-butyl ether	7,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Methylene Chloride	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
Naphthalene	11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
n-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
n-Propylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 001 MP001 01/23/13	Outfall 001 MP001 02/22/13	Outfall 001 MP001 03/14/13	Outfall 001 MP001 04/30/13	Outfall 001 MP001 05/30/13	Outfall 001 MP001 07/01/13	Outfall 001 MP001 10/25/13	Outfall 001 MP001 11/20/13	Outfall 002 MP002 01/23/13	Outfall 002 MP002 02/22/13	Outfall 002 MP002 03/14/13
o-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<5 [<5]	NA	NA
sec-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Styrene	80 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
tert-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Tetrachloroethene	60 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 [1]	NA	NA
Tetrahydrofuran	11,000 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<90 [<90]	NA	NA
Toluene	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
trans-1,2-Dichloroethene	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
trans-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
trans-1,4-Dichloro-2-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Trichloroethene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3 [3]	NA	NA
Trichlorofluoromethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	<1 [<1]	NA	NA
Vinyl Chloride	13 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 [1]	NA	NA
PCB													
Aroclor-1016	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic													
Antimony	130 {(X)}	ug/L	<2	<5	<5	<2	<5	<5	9	<5	NA	NA	NA
Arsenic	10	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	**18**	8	7
Barium	1,308 {(G)}	ug/L	82	32	19	66	58	70	52	54	311	NA	NA
Beryllium	26 {(G)}	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	NA	NA	NA
Cadmium	4.5 {(G,X)}	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	NA	NA
Chromium Total	11	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt	100	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	NA	NA	NA
Copper	21.6 {(G)}	ug/L	<4	<4	<4	<5	**31**	<4	<5	<5	**40**	<4	7
Cyanide (total)	5.2	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	**6**	**16**	**8**
Lead	44 {(G,X)}	ug/L	<3	<3	<3	<3	<3	<3	<3	**112**	33	NA	NA
Manganese	4,500 {(G,X)}	ug/L	<5	53	<5	<5	9	<5	5	43	1,470	NA	NA
Mercury	1.3	ng/L	0.66 O	**5.2 O**	0.83 O	1.2 O	1.0 O	0.70 O	**2.2 O**	**3.5 O**	**10 O**	1.1 O	**2.7 O**
Nickel	120 {(G)}	ug/L	8	<5	<5	5	<5	5	5	<5	NA	NA	NA
Selenium	5	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	0.2 {(M)}	ug/L	**0.6**	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	**0.3**	<0.2	<0.2
Thallium	3.7 {(X)}	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	NA	NA	NA
Vanadium	27	ug/L	<4	<4	<4	<2	<4	<5	<4	<4	<4	NA	NA
Zinc	260 {(G)}	ug/L	11	8	<5	6	<5	5	8	154	140	NA	NA
Miscellaneous													
Total Suspended Solids (TSS)	- -	ug/L	3,000	79,000	3,000	<1,000	1,000	3,000	3,000	11,000	176,000	12,000	41,000

Notes:
Shaded and Bolded results exceed GSI criteria.
GSI - Groundwater/Surface Water Interface Criteria.
G - GSI criterion depends on the pH or water hardness (or both) of the receiving surface water. Criterion was calculated using a pH of 7 and a water hardness of 280 mg/L $CaCO_3$ for the Flint River.
ID - Insufficient data to develop criterion.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
NA - Not analyzed or not applicable
O - Indicates that the analysis was performed by an outside laboratory.
X - GSI crierion in generic tables is not protective of surface water that is used as a drinking water source.
ug/L - micrograms per liter
mg/L - milligrams per liter
PCB samples at Outfall 003 were sampled within one week of the monthly event.

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 003 MP003 01/23/13	Outfall 003 MP003 02/22/13	Outfall 003 MP003 03/14/13	Outfall 003 MP003 04/30/13	Outfall 003 MP003 05/30/13	Outfall 003 MP003 07/01/13	Outfall 003 MP003 07/25/13	Outfall 003 MP003 08/21/13	Outfall 003 MP003 09/25/13	Outfall 003 MP003 10/25/13	Outfall 003 MP003 11/20/13
VOC													
1,1,1,2-Tetrachloroethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	78 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	330 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	99 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	5.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	360 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	230 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	45	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	19	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	35	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	45 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	6.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	7,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 003 MP003 01/23/13	Outfall 003 MP003 02/22/13	Outfall 003 MP003 03/14/13	Outfall 003 MP003 04/30/13	Outfall 003 MP003 05/30/13	Outfall 003 MP003 07/01/13	Outfall 003 MP003 07/25/13	Outfall 003 MP003 08/21/13	Outfall 003 MP003 09/25/13	Outfall 003 MP003 10/25/13	Outfall 003 MP003 11/20/13
o-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	80 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	60 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	11,000 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	13 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB													
Aroclor-1016	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor-1221	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor-1232	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor-1242	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor-1248	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor-1254	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor-1260	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCBs	0.2 {(M)}	ug/L	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganic													
Antimony	130 {(X)}	ug/L	<2 [<2]	<5 [<5]	<5 [<5]	<2 [<2]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]
Arsenic	10	ug/L	4 [3]	3 [4]	3 [3]	3 [3]	4 [3]	3 [3]	4 [4]	5 [5]	3 [4]	4 [4]	6 [6]
Barium	1,308 {(G)}	ug/L	150 [150]	127 [127]	119 [116]	119 [113]	93 [92]	133 [133]	147 [146]	146 [148]	162 [162]	137 [137]	133 [128]
Beryllium	26 {(G)}	ug/L	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]	<1 [<1]
Cadmium	4.5 {(G,X)}	ug/L	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	0.7 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<5 [<5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]
Chromium Total	11	ug/L	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	7 [7]
Cobalt	100	ug/L	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]
Copper	21.6 {(G)}	ug/L	<4 [<4]	<4 [<4]	<4 [<4]	<5 [5]	**51 [9]**	4 [4]	5 [15]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]
Cyanide (total)	5.2	ug/L	**6 [6]**	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]
Lead	44 {(G,X)}	ug/L	<3 [<3]	<3 [<3]	7 [8]	<3 [<3]	<3 [<3]	<3 [<3]	4 [5]	<3 [<3]	<3 [<3]	<3 [<3]	<3 [<3]
Manganese	4,500 {(G,X)}	ug/L	265 [274]	302 [308]	264 [267]	309 [309]	188 [182]	331 [349]	438 [442]	293 [288]	302 [308]	236 [235]	286 [273]
Mercury	1.3	ng/L	1.1 O	<25 O	**2.0 O**	**1.7 O**	**3.8 O**	**3.3 O**	**5.6 O**	**2.4 O**	**2.3 O**	0.90 O	**1.5 O**
Nickel	120 {(G)}	ug/L	18 [19]	11 [11]	10 [10]	17 [18]	13 [12]	18 [18]	18 [17]	20 [19]	20 [21]	19 [19]	18 [17]
Selenium	5	ug/L	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]	<5 [<5]
Silver	0.2 {(M)}	ug/L	<0.2 [<0.2]	<0.2 [<0.2]	<0.2 [<0.2]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]	<0.5 [<0.5]
Thallium	3.7 {(X)}	ug/L	<2 [<2]	<2 [<2]	<2 [<2]	<2 [<2]	<2 [<2]	<2 [<2]	<1 [1]	<2 [<2]	<2 [<2]	<2 [<2]	<2 [<2]
Vanadium	27	ug/L	<4 [<4]	<4 [<4]	<4 [<4]	<2 [<2]	<4 [4]	<5 [<5]	<4 [<4]	<5 [<5]	<5 [<5]	<4 [<4]	<4 [<4]
Zinc	260 {(G)}	ug/L	7 [8]	9 [10]	12 [12]	15 [17]	26 [18]	14 [14]	11 [10]	8 [8]	<5 [<5]	5 [5]	7 [7]
Miscellaneous													
Total Suspended Solids (TSS)	- -	ug/L	4,000 [14,000]	2,000 [4,000]	4,000 [7,000]	6,000 [6,000]	6,000 [6,000]	6,000 [4,000]	9,000 [7,000]	3,000 [3,000]	1,000 [15,000]	1,000 [5,000]	3,000 [4,000]

Notes:
Shaded and Bolded results exceed GSI criteria.
GSI - Groundwater/Surface Water Interface Criteria.
G - GSI criterion depends on the pH or water hardness (or both) of the receiving surface
ID - Insufficient data to develop criterion.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterio
NA - Not analyzed or not applicable
O - Indicates that the analysis was performed by an outside laboratory.
X - GSI crierion in generic tables is not protective of surface water that is used a
ug/L - micrograms per liter
mg/L - milligrams per liter
PCB samples at Outfall 003 were sampled within one week of the monthly even

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: / Sample Location: / Date Collected:	GSI	Units	Outfall 005 MP005 01/23/13	Outfall 005 MP005 02/22/13	Outfall 005 MP005 03/14/13	Outfall 005 MP005 04/30/13	Outfall 006 MP006 01/23/13	Outfall 006 MP006 02/22/13	Outfall 006 MP006 03/14/13	Outfall 006 MP006 04/30/13	Outfall 006 MP006 05/30/13	Outfall 006 MP006 07/01/13	Outfall 006 MP006 07/25/13	Outfall 006 MP006 08/21/13	Outfall 006 MP006 09/25/13	Outfall 006 MP006 10/25/13	Outfall 006 MP006 11/20/13
VOC																	
1,1,1,2-Tetrachloroethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	78 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	330 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	99 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	5.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	360 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	230 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	45	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	19	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	35	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	45 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	6.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	7,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 005 MP005 01/23/13	Outfall 005 MP005 02/22/13	Outfall 005 MP005 03/14/13	Outfall 005 MP005 04/30/13	Outfall 006 MP006 01/23/13	Outfall 006 MP006 02/22/13	Outfall 006 MP006 03/14/13	Outfall 006 MP006 04/30/13	Outfall 006 MP006 05/30/13	Outfall 006 MP006 07/01/13	Outfall 006 MP006 07/25/13	Outfall 006 MP006 08/21/13	Outfall 006 MP006 09/25/13	Outfall 006 MP006 10/25/13	Outfall 006 MP006 11/20/13
o-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	80 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	60 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	11,000 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	13 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	0.2 {(M); 2.6E-5}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.2 {(M)}	ug/L	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	130 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	ug/L	**188**	7	9	6	<2	NA	NA	NA	NA	3	3	NA	NA	NA	NA
Barium	1,308 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	26 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4.5 {(G,X)}	ug/L	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	11	ug/L	5	NA	NA	<5	<5	NA	NA	<5	NA	<5	<5	NA	NA	<5	NA
Cobalt	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	21.6 {(G)}	ug/L	**24**	<4	<4	<5	<4	NA	NA	<5	NA	<4	<4	NA	NA	<5	NA
Cyanide (total)	5.2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	44 {(G,X)}	ug/L	36	3	12	<3	<3	NA	NA	NA	NA	<3	<3	NA	NA	NA	NA
Manganese	4,500 {(G,X)}	ug/L	1,330	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	1.3	ng/L	1.2 O	<0.50 O	**1.8 O**	**2.5 O**	**3.0 O**	**170 O**	**3.2 O**	0.79 O	**1.7 O**	0.66 O	1.1 O	0.64 O	**27 O**	**1.5 O**	0.77 O
Nickel	120 {(G)}	ug/L	15	NA	NA	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.2 {(M)}	ug/L	<0.2	<0.2	<0.2	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	3.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	27	ug/L	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	260 {(G)}	ug/L	141	<5	7	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Total Suspended Solids (TSS)	- -	ug/L	149,000	4,000	8,000	5,000	<1,000	340,000	6,000	1,000	1,000	1,000	6,000	<1,000	78,000	41,000	2,000

Notes:
Shaded and Bolded results exceed GSI criteria.
GSI - Groundwater/Surface Water Interface Criteria.
G - GSI criterion depends on the pH or water hardness (or both) of the receiving surface
ID - Insufficient data to develop criterion.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterio
NA - Not analyzed or not applicable
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X - GSI crierion in generic tables is not protective of surface water that is used a
ug/L - micrograms per liter
mg/L - milligrams per liter
PCB samples at Outfall 003 were sampled within one week of the monthly even

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RACER Trust, Buick City Site, Flint, Michigan

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VOC															
1,1,1,2-Tetrachloroethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	78 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	330 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	99 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	5.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	360 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	230 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	45	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	19	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	35	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	45 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	6.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	7,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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o-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	80 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	60 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	11,000 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	13 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB															
Aroclor-1016	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic															
Antimony	130 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	ug/L	3	NA	NA	NA	<2	<2	<2	<2	**44**	10	10	2	<2
Barium	1,308 {(G)}	ug/L	NA	NA	NA	NA	105	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	26 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4.5 {(G,X)}	ug/L	NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5	**55.7**	<5	<0.5	<0.5	0.5
Chromium Total	11	ug/L	<5	NA	NA	NA	<5	<5	<5	<5	**114**	<5	8	<5	10
Cobalt	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	21.6 {(G)}	ug/L	NA	NA	NA	NA	<4	<4	<4	<5	**646**	<5	8	<5	9
Cyanide (total)	5.2	ug/L	NA	NA	NA	NA	**12**	**6**	**10**	**8**	<5	<5	<5	<5	**26**
Lead	44 {(G,X)}	ug/L	34	NA	NA	NA	<3	<3	6	<3	**2,000**	6	8	<3	26
Manganese	4,500 {(G,X)}	ug/L	NA	NA	NA	NA	91	895	310	207	**9,080**	1,270	1,260	221	96
Mercury	1.3	ng/L	**27 O**	1.3 O	**3.0 O**	**4.6 O**	**5.1 O**	0.93 O	**2.4 O**	**3.8 O**	1.3 O	**10 O**	**1.9 O**	1.2 O	**2.4 O**
Nickel	120 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	3.7 {(X)}	ug/L	NA	NA	NA	NA	<2	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	27	ug/L	NA	NA	NA	NA	<4	<4	<4	<2	**39**	<5	<5	<4	<4
Zinc	260 {(G)}	ug/L	NA	NA	NA	NA	11	10	18	9	**5,640**	31	51	5	66
Miscellaneous															
Total Suspended Solids (TSS)	- -	ug/L	116,000	6,000	16,000	11,000	264,000	4,000	5,000	6,000	1,821,000	40,000	22,000	1,000	96,000

Notes:
Shaded and Bolded results exceed GSI criteria.
GSI - Groundwater/Surface Water Interface Criteria.
G - GSI criterion depends on the pH or water hardness (or both) of the receiving surface
ID - Insufficient data to develop criterion.
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VOC														
1,1,1,2-Tetrachloroethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	78 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	330 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	99 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	5.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	360 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	230 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	45	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	19	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	35	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	45 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	6.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	7,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 010 MP010 01/23/13	Outfall 010 MP010 02/22/13	Outfall 010 MP010 03/14/13	Outfall 010 MP010 04/30/13	Outfall 010 MP010 05/30/13	Outfall 010 MP010 07/01/13	Outfall 010 MP010 07/25/13	Outfall 010 MP010 08/21/13	Outfall 010 MP010 09/25/13	Outfall 010 MP010 10/25/13	Outfall 010 MP010 11/20/13	Outfall 011 Outfall 011 08/21/13
o-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	80 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	60 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	11,000 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	13 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB														
Aroclor-1016	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic														
Antimony	130 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	ug/L	<2	<2	<2	2	3	2	<2	**16**	4	<2	2	NA
Barium	1,308 {(G)}	ug/L	105	NA	NA	91	NA	100	112	NA	NA	116	NA	NA
Beryllium	26 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4.5 {(G,X)}	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	NA
Chromium Total	11	ug/L	<5	<5	6	<5	<5	<5	<5	**30**	<5	<5	7	NA
Cobalt	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	21.6 {(G)}	ug/L	<4	<4	<4	<5	**36**	<4	<4	**311**	<5	<5	<5	<5
Cyanide (total)	5.2	ug/L	**7**	**10**	**9**	<5	<5	**6**	<5	**6**	<5	NA	**8**	NA
Lead	44 {(G,X)}	ug/L	<3	<3	5	<3	<3	<3	<3	**242**	5	<3	<3	<3
Manganese	4,500 {(G,X)}	ug/L	41	74	175	118	94	89	69	**7,340**	566	43	101	NA
Mercury	1.3	ng/L	**2.7 O**	0.82 O	**650 O**	1.0 O	**1.9 O**	0.99 O	**14 O**	**8.0 O**	**42 O**	0.96 O	0.10 O	0.55 O
Nickel	120 {(G)}	ug/L	7	NA	NA	NA	NA	7	<5	NA	NA	NA	NA	NA
Selenium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	3.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	27	ug/L	<4	NA	NA	NA	NA	<5	<4	NA	NA	NA	NA	<5
Zinc	260 {(G)}	ug/L	<5	6	12	12	10	8	10	**645**	37	10	15	NA
Miscellaneous														
Total Suspended Solids (TSS)	- -	ug/L	3,000	4,000	5,000	3,000	2,000	1,000	<1,000	1,000	13,000	158,000	82,000	<1,000

Notes:
Shaded and Bolded results exceed GSI criteria.
GSI - Groundwater/Surface Water Interface Criteria.
G - GSI criterion depends on the pH or water hardness (or both) of the receiving surface
ID - Insufficient data to develop criterion.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterio
NA - Not analyzed or not applicable
O - Indicates that the analysis was performed by an outside laboratory.
X - GSI crierion in generic tables is not protective of surface water that is used a
ug/L - micrograms per liter
mg/L - milligrams per liter
PCB samples at Outfall 003 were sampled within one week of the monthly even

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 013 MP013 01/23/13	Outfall 013 MP013 02/22/13	Outfall 013 MP013 03/14/13	Outfall 013 MP013 04/30/13	Outfall 013 MP013 05/30/13	Outfall 013 MP013 07/01/13	Outfall 013 MP013 07/25/13	Outfall 013 MP013 09/25/13	Outfall 013 MP013 10/25/13	Outfall 013 MP013 11/20/13
VOC												
1,1,1,2-Tetrachloroethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	89	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	78 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	330 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	740	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	130	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	99 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	5.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	13	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	360 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	230 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	45	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	17	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2,200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	19	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1,700	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	35	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	45 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	350	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	620	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	18	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	6.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	28	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	7,100 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5. 2013 NPMP Analytical Results, 2013 CMI Annual Report
RACER Trust, Buick City Site, Flint, Michigan

Outfall: Sample Location: Date Collected:	GSI	Units	Outfall 013 MP013 01/23/13	Outfall 013 MP013 02/22/13	Outfall 013 MP013 03/14/13	Outfall 013 MP013 04/30/13	Outfall 013 MP013 05/30/13	Outfall 013 MP013 07/01/13	Outfall 013 MP013 07/25/13	Outfall 013 MP013 09/25/13	Outfall 013 MP013 10/25/13	Outfall 013 MP013 11/20/13
o-Xylene	41	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	80 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	{ID}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	60 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	11,000 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	270	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1,500 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	9 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	200 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	{NA}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	13 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	0.2 {(M); 2.6E-5}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	130 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	ug/L	<2	<2	<2	<2	3	<2	2	<2	<2	<2
Barium	1,308 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	26 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4.5 {(G,X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	11	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	8
Cobalt	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	21.6 {(G)}	ug/L	<4	<4	<4	<5	**22**	<4	**31**	**30**	<5	<5
Cyanide (total)	5.2	ug/L	<5	**12**	<5	<5	<5	<5	<5	<5	<5	<5
Lead	44 {(G,X)}	ug/L	<3	<3	5	<3	<3	<3	5	3	<3	<3
Manganese	4,500 {(G,X)}	ug/L	108	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	1.3	ng/L	**1.7 O**	**1.5 O**	0.51 O	0.87 O	<0.50 O	**1.6 O**	**200 O**	**120 O**	**4.5 O**	**4.3 O**
Nickel	120 {(G)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.2 {(M)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	3.7 {(X)}	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	27	ug/L	<4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	260 {(G)}	ug/L	<5	NA	NA	NA	NA	<5	50	NA	NA	NA
Miscellaneous												
Total Suspended Solids (TSS)	- -	ug/L	4,000	5,000	3,000	1,000	5,000	5,000	70,000	36,000	3,000	8,000

Notes:
Shaded and Bolded results exceed GSI criteria.
GSI - Groundwater/Surface Water Interface Criteria.
G - GSI criterion depends on the pH or water hardness (or both) of the receiving surface
ID - Insufficient data to develop criterion.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterio
NA - Not analyzed or not applicable
O - Indicates that the analysis was performed by an outside laboratory.
X - GSI crierion in generic tables is not protective of surface water that is used a
ug/L - micrograms per liter
mg/L - milligrams per liter
PCB samples at Outfall 003 were sampled within one week of the monthly even

Table 6 **NPMP Mercury Evaluation, 2013 CMI Annual Report**
RACER Trust, Buick City Site, Flint, Michigan

2010-2013		
Outfall	**# Samples**	**Geometric Mean**
001	30	2.08
002	29	3.57
003	39	2.38
004	6	2.74
005	32	1.73
006	38	1.79
007	27	6.59
009	36	5.58
010	39	5.66
011	10	0.65
013	32	8.02

2012-2013		
Outfall	**# Samples**	**Geometric Mean**
001	18	1.34
002	13	2.98
003	22	2.26
004	NA	NA
005	15	1.52
006	21	1.55
007	15	7.44
009	21	4.75
010	24	5.96
011	3	0.75
013	19	13.12

Note: The highlighthed cell represents the higher of the mean total mercury concentration comparing the 2010-2013 vs. 2012-2013 data set.

Table 7. **June 2013 Groundwater and LNAPL Elevation Data Locations, 2013 CMI Annual Report**
RACER Trust, Buick City Site, Flint, Michigan

			2013 Data				
Monitoring Well ID Number	**Reference Point Elevation (feet)**	**LNAPL Density (extrapolated or measured)**	**Depth to LNAPL (feet)**	**Depth to Groundwater (feet)**	**Depth to Bottom (feet)**	**Groundwater Elevation (feet above mean sea level)**	**Groundwater Elevation Corrected for LNAPL**
NORTH OF LEITH STREET							
07-01	NA	--	NP	8.76	14.22	NA	--
03-03R	746.47	--	Could Not Locate				
03-102	NA	--	NP	5.22	14.30	NA	--
20-144	749.90	--	NP	6.11	13.60	743.79	--
20-164	751.14	--	NP	8.78	15.60	742.36	--
20-168	753.44	0.87	10.05	10.19	17.40	--	743.37
20-500R	750.77	--	NP	4.20	17.40	746.57	--
20-502	751.29	0.87	5.63	9.40	13.00	--	745.17
20-503	751.54	--	NP	7.61	15.40	743.93	--
20-506	751.35	--	Obstruction Encountered 1 ft bgs				
20-FP10R	NA	--	NP	5.03	13.50	NA	--
20-FP12	742.51	--	NP	1.72	9.00	740.79	--
20-FP8	748.73	--	NP	6.21	13.50	742.52	--
20-FP9	749.45	--	NP	6.30	14.70	743.15	--
36-101	750.11	--	NP	11.02	17.60	739.09	--
36-160	750.12	0.9	6.00	6.15	17.00	--	744.11
36-FP1	750.60	--	NP	8.48	22.00	742.12	--
36-FP2	750.30	0.90	8.46	10.43	17.70	--	741.64
36-FP4	753.70	--	NP	3.69	10.87	750.01	--
36-FP7	750.02	0.90	7.51	9.15	17.20	--	742.35
37-RW-NORTH	NA	--	6.05	6.10	16.30	NA	--
37-RW-SOUTH	NA	--	Could Not Locate				
38-120	754.47	--	NP	10.86	17.50	743.61	--
43-103	752.10	--	NP	7.16	13.50	744.94	--
43-161	750.19	--	Could Not Locate				
43-165	749.41	0.89	5.81	6.38	15.60	--	743.54
43-166	747.97	--	NP	4.71	12.50	743.26	--
43-167	748.43	--	NP	5.42	14.70	743.01	--
55-2	753.06	--	NP	9.63	15.60	743.43	--
70-100	742.36	--	NP	4.83	25.00	737.53	--
70-101	742.68	0.91	2.22	2.85	11.80	--	740.40
70-103	743.78	0.91	3.11	3.14	11.60	--	740.67
70-105	743.58	--	NP	2.13	8.60	741.45	--
70-107	742.58	--	NP	5.19	20.00	737.39	--
70-107R	742.80	0.91	2.72	5.05	12.70	--	739.87
70-108R	743.64	--	NP	2.71	15.40	740.93	--
70-109	741.60	--	NP	2.19	10.70	739.41	--
70-165	741.26	--	NP	2.27	9.90	738.99	--
87-FPD2	742.05	--	NP	27.31	34.20	714.74	--
87-FPD3	742.05	--	NP	24.31	46.00	717.74	--
88-7	742.20	--	NP	4.38	14.70	737.82	--
GM-1	724.64	--	NP	10.92	58.30	713.72	--
GM-10	725.79	--	NP	12.07	43.50	713.72	--
GM-12	738.62	--	NP	21.36	37.40	717.26	--
GM-2	725.40	--	NP	9.58	31.20	715.82	--
GM-3	725.54	--	NP	11.83	40.40	713.71	--
GM-4	738.12	--	NP	23.80	82.30	714.32	--
GM-5	737.05	--	NP	22.72	61.50	714.33	--
GM-6	734.96	--	NP	20.72	69.00	714.24	--
GM-7	739.81	--	NP	24.75	50.80	715.06	--
GM-8	738.71	--	NP	21.44	44.20	717.27	--
GM-9	724.39	--	NP	10.69	27.30	713.70	--
MW-00-FP6	740.73	--	NP	16.50	18.00	724.23	--
OW-3S	738.34	--	NP	8.18	15.10	730.16	--
OW-5	725.32	--	NP	5.63	18.40	719.69	--
RFI-03-03	742.01	--	NP	1.61	11.70	740.40	--
RFI-03-04	746.67	--	NP	5.45	13.90	741.22	--
RFI-05-06	752.13	--	Could Not Locate				
RFI-05-08	755.77	--	NP	11.30	13.60	744.47	--
RFI-05-09	751.65	--	NP	8.68	15.20	742.97	--
RFI-05-14	754.12	0.89	9.90	15.29	16.40	--	743.63
RFI-05-19S	749.48	--	NP	7.92	16.50	741.56	--
RFI-07-01R2	736.00	--	NP	11.43	18.85	724.57	--
RFI-07-08	728.12	--	NP	10.89	19.80	717.23	--
RFI-09-11	728.85	--	Monitoring well is covered with water				
RFI-10-07	751.33	--	NP	6.17	16.60	745.16	--
RFI-10-24	751.53	--	NP	9.32	18.30	742.21	--
RFI-10-26	749.32	--	NP	6.30	14.70	743.02	--
RFI-10-29	752.40	--	NP	11.08	20.60	741.32	--
RFI-10-31	746.66	--	NP	2.11	13.30	744.55	--
RFI-10-32	754.61	--	NP	12	22.50	742.61	--
RFI-10-33	755.30	--	NP	11.3	20.00	744.00	--
RFI-10-35	755.69	--	NP	13.52	20.00	742.17	--
RFI-10-37	742.1	--	NP	1.66	12.40	740.44	--

Table 7. **June 2013 Groundwater and LNAPL Elevation Data Locations, 2013 CMI Annual Report**
RACER Trust, Buick City Site, Flint, Michigan

			2013 Data				
Monitoring Well ID Number	Reference Point Elevation (feet)	LNAPL Density (extrapolated or measured)	Depth to LNAPL (feet)	Depth to Groundwater (feet)	Depth to Bottom (feet)	Groundwater Elevation (feet above mean sea level)	Groundwater Elevation Corrected for LNAPL
RFI-36-01	756.63	--	NP	16.13	24.40	740.50	--
RFI-36-03	751.31	--	NP	9.83	19.50	741.48	--
RFI-36-04	756.14	--	NP	14.94	22.90	741.20	--
RFI-36-06	755.29	0.83	13.35	15.30	20.80	--	741.61
RFI-36-07	753.99	--	NP	8.53	16.50	745.46	--
RFI-36-08	749.29	--	Data Suspect - Not included in evaluation				
RFI-36-12	753.52	--	NP	7.14	13.70	746.38	--
RFI-36-13	751.81	--	NP	6.65	17.00	745.16	--
RFI-36-14	750.00	--	NP	3.56	15.40	746.44	--
RFI-36-14	750.00	--	NP	3.56	15.40	746.44	--
RFI-36-19	753.31	--	NP	12.35	21.35	740.96	--
RFI-36-20	757.01	--	No Access Agreement				
RFI-36-29R	753.72	0.86	8.53	10.83	21.20	--	744.87
RFI-36-35	750.05	--	NP	9.30	15.50	740.75	--
RFI-36-37	757.15	--	NP	15.68	26.79	741.47	--
RFI-36-43	753.26	--	NP	6.71	19.60	746.55	--
RFI-36-46	750.13	--	NP	9.55	22.00	740.58	--
RFI-36-47R	752.12	--	NP	12.29	20.80	739.83	--
RFI-36-48	757.71	--	NP	18.30	20.40	739.41	--
RFI-36-55R	750.5	--	NP	10.89	20.00	739.61	--
RFI-36-56	749.97	--	NP	10.07	12.50	739.90	--
RFI-38-04	751.58	--	NP	16.35	24.60	735.23	--
RFI-38-06	749.43	--	NP	12.09	21.80	737.34	--
RFI-40-27	731.71	--	NP	6.82	21.35	724.89	--
RFI-55-01	751.85	--	NP	7.90	15.60	743.95	--
RFI-55-02	752.88	--	NP	8.89	19.60	743.99	--
RFI-55-12	752.26	--	Destroyed				
RFI-81-02	745.92	--	NP	10.25	20.50	735.67	--
RFI-81-03	745.70	--	No Well in Vault				
RFI-81-07	NA	--	NP	13.15	16.20	NA	--
RFI-81-08	741.43	--	NP	7.51	17.20	733.92	--
RFI-81-13	744.61	--	NP	10.27	15.60	734.34	--
RFI-81-21	753.80	--	No Access Agreement				
RFI-81-33	736.94	--	NP	4.12	13.60	732.82	--
RFI-81-35	743.23	--	NP	11.85	19.30	731.38	--
RFI-81-43	743.76	--	NP	4.22	12.10	739.54	--
RFI-81-47	742.38	--	NP	6.03	12.40	736.35	--
RFI-81-49	742.71	--	NP	9.85	12.80	732.86	--
RFI-81-50	740.60	--	NP	2.75	12.80	737.85	--
RFI-81-51	742.35	--	NP	12.72	20.00	729.63	--
RFI-83/84-01	741.34	--	NP	2.31	11.60	739.03	--
RFI-83/84-04	745.51	0.89	6.90	7.15	16.00	--	738.58
RFI-83/84-06	745.58	0.89	7.93	12.55	16.50	--	737.14
RFI-83/84-07	746.56	0.88	7.67	8.70	17.60	--	738.77
RFI-83/84-27	745.72	0.89	10.64	11.15	15.65	--	735.02
RFI-83/84-29	742.76	--	NP	10.69	16.70	732.07	--
RFI-83/84-49	745.25	0.90	8.74	12.70	17.90	--	736.11
RFI-83/84-53	745.63	0.89	6.54	8.95	16.60	--	738.82
RFI-83/84-54	746.41	--	NP	7.94	14.60	738.47	--
RFI-85-02/02R	742.91	--	NP	9.93	16.40	732.98	--
RFI-85-04R	745.95	--	NP	20.69	23.80	725.26	--
RFI-85-05	745.95	--	NP	20.59	21.60	725.36	--
RFI-86-03	736.62	--	NP	6.00	14.80	730.62	--
RFI-86-06D	737.21	--	Could Not Locate				
RFI-86-06S	737.32	--	NP	11.38	14.20	725.94	--
RFI-86-08R	743.25	--	NP	9.64	20.30	733.61	--
RFI-86-15	718.03	--	NP	3.63	19.70	714.40	--
RFI-86-16R	731.76	--	NP	15.25	20.25	716.51	--
RW-1	749.92		7.91	8.22	22.90	--	741.70
RW-3	749.46		6.74	7.00	21.00	--	742.46
SOUTH OF LEITH STREET							--
04-160	729.13	--	NP	11.88	21.70	717.25	--
20-102	752.30	--	NP	6.33	16.20	745.97	--
20-105R	751.91	--	NP	7.14	16.80	744.77	--
20-142	749.60	--	NP	6.06	11.90	743.54	--
20-164	751.14	--	NP	8.78	15.60	742.36	--
31-1	735.19	--	NP	6.54	20.20	728.65	--
31-3	734.44	--	NP	4.43	17.65	730.01	--
31-4D	733.87	--	NP	3.98	15.60	729.89	--
31-4S	733.90	--	NP	3.68	11.70	730.22	--
31-5	736.12	--	NP	8.36	13.70	727.76	--
31-7	729.75	--	NP	6.92	15.70	722.83	--
31-8	730.26	--	NP	8.83	14.70	721.43	--
40-07R2	735.37	0.79	8.13	18.83	22.50	--	724.98
40-304	731.11	--	NP	2.92	8.30	728.19	--

Table 7. **June 2013 Groundwater and LNAPL Elevation Data Locations, 2013 CMI Annual Report**
RACER Trust, Buick City Site, Flint, Michigan

			2013 Data				
Monitoring Well ID Number	**Reference Point Elevation (feet)**	**LNAPL Density (extrapolated or measured)**	**Depth to LNAPL (feet)**	**Depth to Groundwater (feet)**	**Depth to Bottom (feet)**	**Groundwater Elevation (feet above mean sea level)**	**Groundwater Elevation Corrected for LNAPL**
40-305	731.24	--	NP	3.73	10.00	727.51	--
43-102E	NA	--	NP	7.33	22.60	NA	--
70-163	742.59	--	NP	3.07	9.56	739.52	--
70-164R	NA	--	NP	3.13	8.31	NA	--
84-6R2D	726.80	--	NP	3.11	34.66	723.69	--
84-7D	727.42	--	NP	6.59	33.55	720.83	--
86-100	740.05	--	NP	4.23	13.80	735.82	--
87-FP1	715.79	--	Could Not Locate				
87-FP3	739.07	--	NP	9.68	14.60	729.39	--
87-FP5	741.01	--	NP	10.28	13.50	730.73	--
88-6	741.60	--	NP	4.16	18.50	737.44	--
94-100	720.36	--	NP	7.21	18.65	713.15	--
ACSP-B2AR	738.66	--	NP	24.72	33.00	713.94	--
BD01-01	744.29	--	NP	23.07	24.10	721.22	--
BD01-02R	736.67	--	NP	10.12	19.80	726.55	--
BD01-04	736.33	--	NP	12.80	20.70	723.53	--
MW 16	713.53	--	No Access Agreement				
MW 17	714.54	--	No Access Agreement				
MW 18	714.33	--	No Access Agreement				
MW 19	712.00	--	No Access Agreement				
MW 23	719.89	--	No Access Agreement				
MW 25	722.38	--	No Access Agreement				
MW 26	722.18	--	No Access Agreement				
RFI-02-05R	739.14	--	NP	2.28	7.80	736.86	--
RFI-02-08R	736.07	--	NP	3.83	13.50	732.24	--
RFI-02-12	738.51	--	NP	4.56	14.00	733.95	--
RFI-02-14	738.73	0.91	4.65	7.00	18.00	--	733.86
RFI-02-15	738.74	0.91	4.08	12.18	17.80	--	733.92
RFI-02-16	738.66	--	NP	4.00	18.00	734.66	--
RFI-02-17	738.67	--	NP	4.55	18.00	734.12	--
RFI-02-18	738.69	--	NP	4.06	13.30	734.63	--
RFI-02-19	738.54	0.91	5.26	5.81	16.90	--	733.23
RFI-02-22	729.77	--	NP	0.00	15.10	729.77	--
RFI-02-23	738.57	--	NP	4.13	15.00	734.44	--
RFI-05-11	754.42	--	Could Not Locate				
RFI-09-04R	725.95	--	NP	14.71	18.75	711.24	--
RFI-09-08	728.45	--	NP	7.50	14.60	720.95	--
RFI-09-14	724.44	--	No Access Agreement				
RFI-09-36R	725.90	--	NP	6.52	13.70	719.38	--
RFI-09-40R	729.76	0.75	7.26	7.53	16.80	--	722.43
RFI-09-44	728.22	--	NP	5.29	14.75	722.93	--
RFI-09-45R	729.76	--	NP	4.46	13.65	725.30	--
RFI-09-46	723.07	--	NP	8.62	15.00	714.45	--
RFI-09-47	730.02	--	NP	7.37	16.26	722.65	--
RFI-09-48	719.69	--	NP	10.67	17.60	709.02	--
RFI-09-49R	726.43	--	NP	14.45	19.85	711.98	--
RFI-09-52	730.21	--	NP	7.61	14.70	722.60	--
RFI-09-53	725.48	--	NP	10.74	14.80	714.74	--
RFI-09-55S	728.02	--	NP	8.10	14.70	719.92	--
RFI-09-56	726.93	--	NP	4.21	10.45	722.72	--
RFI-09-57	724.90	--	NP	1.99	12.80	722.91	--
RFI-09-58	723.38	--	No Access Agreement				
RFI-10-03	751.79	--	NP	8.06	17.80	743.73	--
RFI-10-07	751.33	--	NP	6.17	16.60	745.16	--
RFI-10-11	746.14	--	NP	3.85	22.00	742.29	--
RFI-12-01R	741.98	--	NP	4.52	14.55	737.46	--
RFI-12-02/02R	742.10	0.93	4.30	4.92	19.27	--	737.76
RFI-12-07R2	741.95	--	NP	4.62	12.75	737.33	--
RFI-12-08R	742.08	0.93	7.40	10.82	19.90	--	734.44
RFI-12-09R	741.97	0.93	3.95	12.80	12.80	--	737.40
RFI-12-11D	742.09	0.93	6.62	18.41	22.80	--	734.64
RFI-12-11S	742.17	--	NP	4.66	14.57	737.51	--
RFI-12-14R	742.20	--	NP	4.65	13.00	737.55	--
RFI-12-15	742.13	--	NP	4.91	17.70	737.22	--
RFI-12-22R	742.07	--	NP	4.58	12.63	737.49	--
RFI-12-23	742.21	0.89	6.80	9.00	18.00	--	735.17
RFI-12-24	742.12	--	NP	3.69	15.20	738.43	--
RFI-12-25	741.85	--	NP	4.38	16.50	737.47	--
RFI-12-26	742.04	--	NP	4.13	19.20	737.91	--
RFI-12-27	737.91	--	NP	0.70	13.75	737.21	--
RFI-12-33	743.66	--	NP	6.14	13.80	737.52	--
RFI-12-34	744.02	--	NP	6.89	15.70	737.13	--
RFI-12-35	743.83	0.93	3.94	5.49	14.45	--	739.78
RFI-12-38	742.39	0.93	4.86	5.71	7.60	--	737.47
RFI-12-40	741.47	--	NP	5.06	7.50	736.41	--

Table 7. **June 2013 Groundwater and LNAPL Elevation Data Locations, 2013 CMI Annual Report**
RACER Trust, Buick City Site, Flint, Michigan

			2013 Data				
Monitoring Well ID Number	**Reference Point Elevation (feet)**	**LNAPL Density (extrapolated or measured)**	**Depth to LNAPL (feet)**	**Depth to Groundwater (feet)**	**Depth to Bottom (feet)**	**Groundwater Elevation (feet above mean sea level)**	**Groundwater Elevation Corrected for LNAPL**
RFI-12-41	741.56	--	NP	2.80	11.70	738.76	--
RFI-12-42	741.66	--	NP	2.28	14.70	739.38	--
RFI-16-01	736.10	--	NP	6.77	13.70	729.33	--
RFI-16-04R	732.12	--	NP	7.53	16.00	724.59	--
RFI-17-02	720.27	--	NP	8.41	24.93	711.86	--
RFI-17-02D	720.36	--	NP	4.41	24.95	715.95	--
RFI-36-27	755.46	--	Could Not Open				
RFI-36-44	752.45	--	NP	11.51	22.00	740.94	--
RFI-40-02R	740.08	0.90	6.61	7.79	19.30	--	733.35
RFI-40-03	735.33	--	NP	7.81	15.80	727.52	--
RFI-40-04	728.15	--	NP	9.67	31.55	718.48	--
RFI-40-07	729.35	--	NP	1.29	18.70	728.06	--
RFI-40-07R2	NA	--	8.13	14.83	22.50	NA	--
RFI-40-09	731.85	--	NP	7.20	18.80	724.65	--
RFI-40-10R	735.17	--	NP	6.58	14.50	728.59	--
RFI-40-12R	743.12	--	Could Not Locate				
RFI-40-14R	NA	--	5.68	16.60	22.50	NA	--
RFI-40-20	738.47	--	NP	6.58	13.00	731.89	--
RFI-40-26	738.37	--	NP	8.78	17.00	729.59	--
RFI-40-27	731.71	--	NP	6.82	21.35	724.89	--
RFI-44-05	731.97	--	NP	6.55	18.00	725.42	--
RFI-55-09	753.75	--	NP	10.28	17.90	743.47	--
RFI-55-11	751.69	--	Well Paved Over				
RFI-81-11	740.34	--	NP	4.52	13.80	735.82	--
RFI-81-12R	742.60	--	NP	4.19	13.70	738.41	--
RFI-83/84-05	745.93	--	Could Not Locate				
RFI-84-03S	727.23	--	NP	8.89	21.23	718.34	--
RFI-84-04D	727.08	--	NP	8.56	47.20	718.52	--
RFI-84-04I	727.23	--	NP	8.72	33.67	718.51	--
RFI-84-05	726.63	--	NP	5.13	17.75	721.50	--
RFI-84-06R	720.12	--	NP	3.51	25.00	716.61	--
RFI-84-06RD	720.18	--	NP	3.61	24.94	716.57	--
RFI-84-07S	727.12	--	NP	7.21	21.72	719.91	--
RFI-84-09D	719.27	--	NP	9.08	29.05	710.19	--
RFI-84-09S	719.43	--	NP	9.11	14.55	710.32	--
RFI-84-10D	718.64	--	NP	4.96	30.00	713.68	--
RFI-84-10S	718.70	--	NP	3.35	22.00	715.35	--
RFI-84-11S	721.97	--	NP	3.17	12.70	718.80	--
RFI-84-12	NA	--	NP	8.39	18.79	NA	--
RFI-84-8S	727.22	--	NP	9.29	20.00	717.93	--
RFI-86-01	735.80	--	Could Not Locate				
RFI-86-01R	735.51	--	NP	7.53	NA	727.98	--
RFI-86-15	718.03	--	NP	3.63	19.70	714.40	--
RFI-94-02R	727.35	--	NP	13.35	24.50	714.00	--
RFI-94-05	727.48	--	NP	2.28	13.40	725.20	--
RFI-94-08	727.44	--	NP	13.36	24.55	714.08	--
RFI-94-11	719.54	--	NP	7.72	15.80	711.82	--

Notes:
NA - Not Available
NP - No product measured
ft - feet
bgs - below ground surface
LNAPL - light non-aqueous phase liquid

Table 8. **2013 Groundwater Quality Monitoring Locations, 2013 CMI Annual Report**
RACER Trust Buick City Site, Flint, Michigan

Sampling Location	Groundwater Analytical Parameters	Sampling Rationale	Comments
North of Leith Street			
07-01	VOCs	Plume Fringe Well - Located at downgradient edge of a VOC plume. Sampling to monitor concentrations.	AGMP - Sampled in June
RFI-10-03	VOCs Cyanide. Mercury, manganese, and silver	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
RFI-10-05	VOCs Cyanide, lead, manganese, silver, and vanadium	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	Unable to be located
RFI-10-11	Cyanide	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
RFI-10-26	Cyanide, lead, mercury, selenium, and vanadium	Plume Fringe Well - located along the downgradient edge of metals plume. Sampling to monitor concentrations.	AGMP - Sampled in June
RFI-10-32	VOCs	Off-Site Plume Fringe Well - Located at the downgradient edge of VOC plume. Sampling to monitor concentrations.	AGMP - Sampled in June
RFI-10-33	VOCs Cyanide, lead, manganese, silver, and vanadium	Off-Site Plume Fringe Well - Located at the downgradient edge of VOC and inorganics plume.	AGMP - Sampled in June
RFI-10-37	VOCs	Plume Fringe Well - Monitoring well was installed in 2012 to monitor VOC concentrations at the property boundary. Replaces 20-FP10R as the plume fringe well.	AGMP - Sampled in June
20-102	VOCs	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June and September
20-105R	VOCs Cyanide, lead, manganese, silver, and vanadium	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June and September
20-500R	VOCs	Plume Fringe Well - Located at the downgradient edge of VOC Plume. Sampling to monitor concentrations.	AGMP - Sampled in June
RFI-36-03	Cadmium and Lead	Plume fringe well; to assess cadmium and lead concentrations	AGMP - Sampled in June
RFI-36-08	VOCs	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June
RFI-36-35	VOCs Arsenic, chromium, manganese, silver and vanadium	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
RFI-36-37	VOCs	Off-Site Plume fringe well - Located at downgradient edge of VOC plume. Sampling to monitor concentrations. Replaces wells RFI-36-19 and RFI-36-20.	AGMP - Sampled in June
RFI-36-44	VOCs	Off-Site Sentinel Well - Located side/downgradient edge of VOC plume. Sampling to monitor concentrations. Replaces well RFI-36-56.	AGMP - Sampled in June
RFI-36-46	Manganese	Plume Well - Monitoring well has not been sampled in 5 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June and September
RFI-36-47R	VOCs Arsenic, chromium, manganese, silver and vanadium	Off-Site Plume Fringe Well - Located at downgradient edge of VOC plumes sampling to monitor concentrations. Off-Site Sentinel Well - Sampling to determine whether historic groundwater impacts have migrated off-Site. Replaces well RFI-36-02.	AGMP - Sampled in June and September
RFI-36-55R	VOCs	Off-Site Plume Fringe Well - Located at downgradient edge of VOC plume. Sampling to monitor concentrations. Replaces well RFI-36-48.	AGMP - Sampled in June
36-FP1	VOCs Arsenic, lead, and manganese	Plume Well - Monitoring well has not been analyzed for VOCs in 7 years. Sampling is proposed to determine current concentrations at the property boundary. Plume Fringe Well - Located downgradient edge of inorganic plume. Sampling to assess arsenic, lead and manganese concentrations.	AGMP - Sampled in June
70-163	VOCs Manganese	Off-Site Sentinel Well - Located downgradient of the VOC plume. Sampling to assess current conditions. Plume well - Sampling to assess a historic manganese exceedance.	AGMP - Sampled in June
70-164R	VOCs Selenium	Off-Site Sentinel Well - Located downgradient of an LNAPL plume. Sampling to assess current conditions. Plume Well - Sampling to assess a historic selenium exceedance.	AGMP - Sampled in June
RFI-81-11	VOCs Arsenic, cyanide, lead, manganese, and mercury	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
RFI-81-12R	Mercury and Silver	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
RFI-81-33	Mercury	Plume Well - Monitoring well has not been sampled in 9 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June and September
RFI-81-51	VOCs	Plume Fringe Well - Located at downgradient edge of a VOC plume. Sampling to monitor concentrations.	AGMP - Sampled in June

Table 8. **2013 Groundwater Quality Monitoring Locations, 2013 CMI Annual Report**
RACER Trust Buick City Site, Flint, Michigan

Sampling Location	Groundwater Analytical Parameters	Sampling Rationale	Comments
RFI-86-06S	VOCs	Plume Well - Monitoring well has not been sampled in 9 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June and November
RFI-86-08R	VOCs Arsenic and Selenium	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June
86-100	VOCs Cadmium, Copper, lead, manganese, nickel, silver, selenium, and zinc	Plume Well - Monitoring well has not been sampled in 9 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
87-FP3	VOCs Arsenic and Selenium	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June
87-FP5	VOCs Arsenic and Selenium	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June
South of Leith Street			
RFI-02-08R	Arsenic	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June and September
RFI-09-04R	VOCs	Plume Well - Monitoring concentrations at property boundary.	AGMP - Sampled in June
RFI-09-08	VOCs	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions and property boundary. Replaces wells RFI-09-14 and MW-23.	AGMP - Sampled in June and September
RI-09-36R	VOCs	Nearby well RFI-09-01 had a historic exceedance (2003)for vinyl chloride; however, RFI-09-01 will be removed during lead soil excavation activities to be completed in Spring 2013. Therefore RFI -09-36R will be sampled to assess current conditions in this portion of the Site.	AGMP - Sampled in June and September
RFI-09-46	VOCs	Off-Site Plume Well - Monitoring concentrations of plume downgradient of the Site.	AGMP - Sampled in June
RFI-09-48	VOCs and metals	Sentinel Well - Located downgradient of Site.	AGMP - Sampled in June
RFI-09-53	VOCs	Plume Well - Monitoring concentrations at property boundary.	AGMP - Sampled in June
RFI-09-55S	VOCs Manganese	Plume well - Monitoring well has not been sampled in 8 years. Sampling is proposed to determine current conditions and property boundary. Replaces wells RFI-09-14 and MW-23.	AGMP - Sampled in June and November
MW-26	VOCs	Off-Site Sentinel Well - Located downgradient of VOC plume to confirm that plume has not migrated.	No access - Unable to be sampled
RFI-40-03	VOCs	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June and September
RFI-40-09	VOCs Arsenic, beryllium, cyanide, mercury, and silver	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
40-304	VOCs PCBs	Plume well - Monitoring concentrations at property boundary. Sentinel Well - Located downgradient of Building 40 Tunnel (required by EPA 9/13/2005 correspondence).	AGMP - Sampled in June
40-305	Cyanide and lead	Plume Well - Monitoring well has not been sampled in 10 years. Sampling is proposed to determine current conditions at the property boundary.	AGMP - Sampled in June
RFI-84-06R	Cyanide	Plume well - Monitoring concentrations at the property boundary.	AGMP - Sampled in June
RFI-84-10S	VOCs Arsenic, beryllium, cyanide, mercury, and silver	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June
RFI-84-10D	VOCs Arsenic, beryllium, cyanide, mercury, and silver	Characterize current concentrations of the dissolved phase plumes.	Additional Sampling Location - Sampled in June
RFI-94-02R	VOCs	Plume Well - Monitoring well has not been sampled in 9 years. Sampling is proposed to determine current conditions at the property boundary. Replaces well RFI-94-11.	AGMP - Sampled in June and September

Note:
AGMP - monitoring well included in the Annual Groundwater Monitoring Program
VOCs = Volatile Organic Compounds.
PCBS = Polychlorinated Biphenyls
LNAPL = light non-aqueous phase liquid.

Table 9 Field Parameters of Monitoring Wells, 2013 CMI Annual Report
RACER Trust Buick City Site, Flint, Michigan

Well ID	Date Sampled	Temperature (°C)	pH (SU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Oxidation Reduction Potential (mV)
20-102	6/5/2013	14.20	7.38	1.250	0.26	4.30	32.0
20-105R	6/5/2013	16.70	7.38	384.000	6.43	4.50	216.3
20-500R	6/5/2013	12.23	7.22	9.120	0.22	13.50	-94.0
36-FP1	6/5/2013	14.50	7.26	1.399	3.01	18.00	225.0
86-100	6/5/2013	15.60	7.64	2.490	0.22	0.70	-13.0
87-FP3	6/5/2013	16.40	7.50	0.773	0.45	2.60	220.3
87-FP5	6/5/2013	21.20	7.27	0.993	0.75	0.00	223.5
RFI-10-03	6/5/2013	15.30	6.76	642.000	0.61	4.90	251.2
RFI-10-11	6/5/2013	16.00	7.78	1.174	6.76	4.30	224.5
RFI-10-26	6/5/2013	15.20	7.06	690.000	7.86	1.80	263.0
RFI-10-37	6/5/2013	12.40	6.96	8.530	0.21	0.00	-59.0
RFI-36-03	6/5/2013	12.60	7.46	0.664	8.14	7.00	222.5
RFI-36-08	6/5/2013	13.50	7.47	1.020	0.15	35.30	-136.0
RFI-36-35	6/5/2013	12.84	7.27	4.150	0.98	0.80	77.0
RFI-36-46	6/5/2013	12.80	6.50	631.000	1.48	17.20	303.3
RFI-81-11	6/5/2013	18.20	8.12	601.000	0.49	5.00	29.8
RFI-81-12R	6/5/2013	17.70	7.20	358.000	4.74	3.40	239.2
RFI-81-33	6/5/2013	14.90	7.08	0.740	0.27	4.70	-10.0
RFI-81-51	6/5/2013	17.60	7.61	5.371	0.79	9.50	223.6
RFI-84-06R	6/5/2013	17.90	8.40	1.149	0.66	0.00	239.4
RFI-84-10D	6/5/2013	16.30	7.68	1.463	0.36	78.30	237.5
RFI-84-10S	6/5/2013	18.90	7.85	0.665	0.89	0.00	237.9
RFI-86-06S	6/5/2013	17.20	7.49	381.000	6.44	0.00	219.3
RFI-86-08R	6/5/2013	21.60	7.27	2.219	0.39	0.00	244.8
RFI-94-02R	6/5/2013	14.50	7.15	2.140	0.37	21.00	-47.0
07-01	6/6/2013	14.81	7.57	0.922	1.65	72.00	-85.3
40-304	6/6/2013	14.70	7.67	0.470	0.32	0.00	-145.0
40-305	6/6/2013	14.10	7.12	0.758	7.30	0.00	181.0
RFI-02-08R	6/6/2013	19.60	7.82	0.400	0.61	0.00	-59.0
RFI-09-04R	6/6/2013	13.99	6.84	1.120	27.60	0.00	251.0
RFI-09-08	6/6/2013	20.10	6.86	0.920	1.95	0.00	86.0
RFI-09-36R	6/6/2013	15.71	7.25	0.954	2.00	17.00	-93.8
RFI-09-53	6/6/2013	15.70	7.01	1.140	0.64	0.00	138.0
RFI-40-03	6/6/2013	14.70	7.52	1.346	3.00	0.80	-70.5
RFI-40-09	6/6/2013	13.09	7.16	1.480	0.33	3.90	-110.0
RFI-09-46	6/7/2013	11.40	7.42	2.610	0.45	2.70	-102.0
RFI-09-48	6/7/2013	13.02	7.45	2.870	1.80	4.90	-65.4

Table 9 Field Parameters of Monitoring Wells, 2013 CMI Annual Report
RACER Trust Buick City Site, Flint, Michigan

Well ID	Date Sampled	Temperature (°C)	pH (SU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Oxidation Reduction Potential (mV)
RFI-09-55S	6/7/2013	13.37	7.45	1.049	1.80	52.40	-48.6
RFI-10-32	6/7/2013	10.78	7.47	2.598	6.10	11.80	50.8
RFI-10-33	6/7/2013	10.44	7.20	0.570	1.22	0.40	38.0
RFI-36-44	6/7/2013	11.03	7.42	1.681	41.40	2.70	25.7
RFI-36-47R	6/7/2013	NA					
RFI-36-55R	6/7/2013	9.02	7.30	1.800	0.47	6.40	-75.0
RFI-36-46	9/16/2013	15.38	6.71	1.598	0.16	0.91	61.3
RFI-36-47R	9/16/2013	12.91	6.84	0.619	0.24	7.60	-82.7
20-102	9/17/2013	16.95	7.36	1.811	0.17	0.33	180.7
20-105R	9/17/2013	16.53	7.09	0.740	0.51	0.23	98.7
RFI-81-33	9/17/2013	18.36	7.00	0.621	0.24	1.98	-54.4
RFI-09-08	9/19/2013	17.33	6.68	1.228	0.76	3.25	-52.1
RFI-09-36R	9/19/2013	19.19	6.62	1.028	0.12	0.88	-129.9
RFI-81-12R	9/19/2013	DRY					
RFI-02-08R	9/26/2013	20.42	8.65	1.165	0.19	0.70	-21.8
RFI-40-03	9/26/2013	18.24	7.75	1.458	0.06	5.42	-105.1
RFI-94-02R	9/26/2013	19.20	7.89	1.421	1.26	8.10	45.6
RFI-09-55S	11/1/2013	16.33	6.79	0.977	0.53	41.7	-133.1
RFI-86-06S	11/1/2013	16.12	6.95	1.150	2.03	0.53	18.2

Notes:

NA - Not available

ºC = Celsius

mg/L = milligrams per liter

mV = millivolts

NTUs = Nephelometric Turbidity Units

SU = Standard Units

mS/cm = milliSiemens per centimeter

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					36	36	36	36	36	36	36	36	36	36	36	10	10
Location ID:					36-FP1	RFI-36-03	RFI-36-08	RFI-36-35	RFI-36-37	RFI-36-44	RFI-36-46	RFI-36-46	RFI-36-47R	RFI-36-47R	RFI-36-55R	20-102	20-102
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	06/05/13	06/05/13	06/05/13	06/07/13	06/07/13	06/05/13	09/16/13	06/07/13	09/16/13	06/07/13	06/05/13	09/17/13
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	96,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	- -	89	1,300,000	**3,700 Y**	NA	10 UY	13 X [23]	1 U	30 Y	NA	NA	1 U	1 U	5 UYX	1 U	2
1,1,2,2-Tetrachloroethane	ug/L	- -	78	77,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	32	170,000	6,000 UY	NA	300 UY	200 UX [30 U]	30 U	300 UY	NA	NA	30 U	30 U	200 UYX	30 U	30 U
1,1,2-Trichloroethane	ug/L	- -	330	110,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,1-Dichloroethane	ug/L	380,000	740	2,300,000	600 Y	NA	10 UY	14 X [16]	8	300 Y	NA	NA	1 U	1 U	112 YX	1 U	1 U
1,1-Dichloroethene	ug/L	97,000	130	1,300	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	6 YX	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	- -	18,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	99	300,000	400 UY	NA	20 UY	10 UX [2 U]	2 U	20 UY	NA	NA	2 U	2 U	10 UYX	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	56,000	17	56,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	1,200	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,2-Dibromoethane	ug/L	- -	5.7	15,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,2-Dichlorobenzene	ug/L	- -	13	160,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,2-Dichloroethane	ug/L	2,500,000	360	59,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,2-Dichloropropane	ug/L	550,000	230	36,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	- -	45	61,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	28	41,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
1,4-Dichlorobenzene	ug/L	- -	17	74,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
2-Butanone	ug/L	- -	2,200	240,000,000	4,000 UY	NA	200 UY	100 UX [20 U]	20 U	200 UY	NA	NA	20 U	20 U	100 UYX	20 U	20 U
2-Hexanone	ug/L	- -	- -	8,700,000	10,000 UY	NA	500 UY	300 UX [50 U]	50 U	500 UY	NA	NA	50 U	50 U	300 UYX	50 U	50 U
2-Methylnaphthalene	ug/L	- -	19	25,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	- -	20,000,000	2,000 UY	NA	100 UY	50 UX [10 U]	10 U	100 UY	NA	NA	10 U	10 U	50 UYX	10 U	10 U
Acetone	ug/L	15,000,000	1,700	1,000,000,000	4,000 UY	NA	200 UY	100 UX [20 U]	20 U	200 UY	NA	NA	20 U	20 U	100 UYX	20 U	20 U
Acrylonitrile	ug/L	6,400,000	2	190,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	68,000	200	35,000	200 UY	NA	**270 Y**	5 UX [1 U]	11	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Bromobenzene	ug/L	- -	- -	390,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	- -	37,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Bromoform	ug/L	- -	- -	3,100,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Bromomethane	ug/L	- -	35	9,000	400 UY	NA	20 UY	10 UX [2 U]	2 U	20 UY	NA	NA	2 U	2 U	10 UYX	2 U	2 U
Carbon Disulfide	ug/L	13,000	- -	550,000	1,000 UY	NA	50 UY	30 UX [5 U]	5 U	50 UY	NA	NA	5 U	5 U	30 UYX	5 U	5 U
Carbon Tetrachloride	ug/L	- -	45	2,400	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Chlorobenzene	ug/L	160,000	25	470,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Chloroethane	ug/L	110,000	1,100	5,700,000	200 UY	NA	10 UY	5 UX [1 U]	26	20 Y	NA	NA	1 U	1 U	9 YX	1 U	1 U
Chloroform	ug/L	- -	350	180,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Chloromethane	ug/L	36,000	- -	45,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
cis-1,2-Dichloroethene	ug/L	530,000	620	210,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1	19
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Cyclohexane	ug/L	- -	- -	- -	200 UY	NA	30 Y	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Dibromochloromethane	ug/L	- -	- -	110,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Dibromomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	- -	300,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Diethyl ether	ug/L	650,000	- -	61,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					36	36	36	36	36	36	36	36	36	36	36	10	10
Location ID:					36-FP1	RFI-36-03	RFI-36-08	RFI-36-35	RFI-36-37	RFI-36-44	RFI-36-46	RFI-36-46	RFI-36-47R	RFI-36-47R	RFI-36-55R	20-102	20-102
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	06/05/13	06/05/13	06/05/13	06/07/13	06/07/13	06/05/13	09/16/13	06/07/13	09/16/13	06/07/13	06/05/13	09/17/13
Ethylbenzene	ug/L	43,000	18	170,000	200 UY	NA	**190 Y**	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Hexachloroethane	ug/L	- -	6.7	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	29,000	28	56,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
m&p-Xylene	ug/L	- -	41	190,000	400 UY	NA	**300 Y**	10 UX [2 U]	2 U	20 UY	NA	NA	2 U	2 U	10 UYX	2 U	2 U
Methyl acetate	ug/L	- -	- -	- -	2,000 UY	NA	100 UY	50 UX [10 U]	10 U	100 UY	NA	NA	10 U	10 U	50 UYX	10 U	10 U
Methyl tert-butyl ether	ug/L	- -	7,100	47,000,000	1,000 UY	NA	50 UY	30 UX [5 U]	5 U	50 UY	NA	NA	5 U	5 U	30 UYX	5 U	5 U
Methylcyclohexane	ug/L	- -	- -	- -	4,000 UY	NA	200 UY	100 UX [20 U]	20 U	200 UY	NA	NA	20 U	20 U	100 UYX	20 U	20 U
Methylene Chloride	ug/L	- -	1,500	1,400,000	1,000 UY	NA	50 UY	30 UX [5 U]	5 U	50 UY	NA	NA	5 U	5 U	30 UYX	5 U	5 U
Naphthalene	ug/L	- -	11	31,000	1,000 UY	NA	50 UY	30 UX [5 U]	5 U	50 UY	NA	NA	5 U	1 U	30 UYX	5 U	1 U
n-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	- -	- -	- -	200 UY	NA	20 Y	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
o-Xylene	ug/L	- -	41	190,000	200 UY	NA	**50 Y**	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
p-Isopropyltoluene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	140,000	80	310,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
tert-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	- -	60	170,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Tetrahydrofuran	ug/L	60,000	11,000	16,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	61,000	270	530,000	200 UY	NA	60 Y	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
trans-1,2-Dichloroethene	ug/L	230,000	1,500	200,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	3
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	- -	200	4,900	200 UY	NA	10 UY	8 X [8]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	2	16
Trichlorofluoromethane	ug/L	- -	- -	1,100,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	10 UY	NA	NA	1 U	1 U	5 UYX	1 U	1 U
Vinyl Chloride	ug/L	33,000	13	13,000	200 UY	NA	10 UY	5 UX [1 U]	1 U	**20 Y**	NA	NA	1 U	1 U	7 YX	1 U	2
PCB																	
Aroclor-1016	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	- -	0.2	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					36	36	36	36	36	36	36	36	36	36	36	10	10
Location ID:					36-FP1	RFI-36-03	RFI-36-08	RFI-36-35	RFI-36-37	RFI-36-44	RFI-36-46	RFI-36-46	RFI-36-47R	RFI-36-47R	RFI-36-55R	20-102	20-102
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	06/05/13	06/05/13	06/05/13	06/07/13	06/07/13	06/05/13	09/16/13	06/07/13	09/16/13	06/07/13	06/05/13	09/17/13
Inorganic																	
Antimony	ug/L	- -	130	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	- -	10	- -	**16**	NA	NA	3	NA	NA	NA	NA	4	6	NA	NA	NA
Barium	ug/L	- -	1,300	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	- -	32	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	- -	4.8	- -	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	- -	- -	- -	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	NA	NA	NA
Cobalt	ug/L	- -	100	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	- -	22	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	- -	5.2	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	- -	47	- -	3 U	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	- -	4,900	- -	292	NA	NA	753 [759]	NA	NA	170	1,170	2,290	1,400	NA	NA	NA
Mercury	ug/L	- -	0.0013	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	- -	120	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	- -	5	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	- -	0.2	- -	NA	NA	NA	0.5 U [0.5 U]	NA	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
Thallium	ug/L	- -	3.7	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	- -	27	- -	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	4 U	NA	NA	NA
Zinc	ug/L	- -	280	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
FE - Flammability and Explosivity Screening Level
GSI - Groundwater/Surface Water Interface Criteria
NGVIA - Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria
NA - Not Analyzed
ug/L - micrograms per liter
Shaded and Bolded results exceeds one or more criteria.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X - Elevated reporting limit due to matrix interference.
Y - Elevated reporting limit due to high target concentration.

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					10	10	10	10	10	10	10	10	10	10	10	81 & 85/86	81 & 85/86	81 & 85/86
Location ID:					20-105R	20-105R	20-500R	70-163	70-164R	RFI-10-03	RFI-10-11	RFI-10-26	RFI-10-32	RFI-10-33	RFI-10-37	07-01	86-100	87-FP3
Sample Depth():																		
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	09/17/13	06/05/13	06/07/13	06/07/13	06/05/13	06/05/13	06/05/13	06/07/13	06/07/13	06/05/13	06/06/13	06/05/13	06/05/13
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	96,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	- -	89	1,300,000	58	**212 Y**	1 U	5 UX [5 UX]	1 U	**141 Y**	NA	NA	36	1	5 UY	1 U	1 U [1 U]	20 UY
1,1,2,2-Tetrachloroethane	ug/L	- -	78	77,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	32	170,000	30 U	200 UY	30 U	200 UX [200 UX]	30 U	200 UY	NA	NA	30 U	30 U	200 UY	30 U	30 U [30 U]	600 UY
1,1,2-Trichloroethane	ug/L	- -	330	110,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,1-Dichloroethane	ug/L	380,000	740	2,300,000	1 U	32 Y	1 U	5 UX [5 UX]	1 U	498 Y	NA	NA	111	1 U	5 UY	2	1 U [1 U]	20 UY
1,1-Dichloroethene	ug/L	97,000	130	1,300	1 U	8 Y	1 U	5 UX [5 UX]	1 U	20 Y	NA	NA	10	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	- -	18,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	99	300,000	2 U	10 UY	2 U	10 UX [10 UX]	2 U	10 UY	NA	NA	2 U	2 U	10 UY	2 U	2 U [2 U]	40 UY
1,2,4-Trimethylbenzene	ug/L	56,000	17	56,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	1,200	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,2-Dibromoethane	ug/L	- -	5.7	15,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,2-Dichlorobenzene	ug/L	- -	13	160,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,2-Dichloroethane	ug/L	2,500,000	360	59,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,2-Dichloropropane	ug/L	550,000	230	36,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,3,5-Trimethylbenzene	ug/L	- -	45	61,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	28	41,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
1,4-Dichlorobenzene	ug/L	- -	17	74,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
2-Butanone	ug/L	- -	2,200	240,000,000	20 U	100 UY	20 U	100 UX [100 UX]	20 U	100 UY	NA	NA	20 U	20 U	100 UY	20 U	20 U [20 U]	400 UY
2-Hexanone	ug/L	- -	- -	8,700,000	50 U	300 UY	50 U	300 UX [300 UX]	50 U	300 UY	NA	NA	50 U	50 U	300 UY	50 U	50 U [50 U]	1,000 UY
2-Methylnaphthalene	ug/L	- -	19	25,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	- -	20,000,000	10 U	50 UY	10 U	50 UX [50 UX]	10 U	50 UY	NA	NA	10 U	10 U	50 UY	10 U	10 U [10 U]	200 UY
Acetone	ug/L	15,000,000	1,700	1,000,000,000	20 U	100 UY	20 U	100 UX [100 UX]	20 U	100 UY	NA	NA	20 U	20 U	100 UY	20 U	20 U [20 U]	400 UY
Acrylonitrile	ug/L	6,400,000	2	190,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	68,000	200	35,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Bromobenzene	ug/L	- -	- -	390,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	- -	37,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Bromoform	ug/L	- -	- -	3,100,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Bromomethane	ug/L	- -	35	9,000	2 U	10 UY	2 U	10 UX [10 UX]	2 U	10 UY	NA	NA	2 U	2 U	10 UY	2 U	2 U [2 U]	40 UY
Carbon Disulfide	ug/L	13,000	- -	550,000	5 U	30 UY	5 U	30 UX [30 UX]	5 U	30 UY	NA	NA	5 U	5 U	30 UY	5 U	5 U [5 U]	100 UY
Carbon Tetrachloride	ug/L	- -	45	2,400	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Chlorobenzene	ug/L	160,000	25	470,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Chloroethane	ug/L	110,000	1,100	5,700,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	218 Y	NA	NA	33	1 U	5 UY	1 U	1 U [1 U]	20 UY
Chloroform	ug/L	- -	350	180,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Chloromethane	ug/L	36,000	- -	45,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
cis-1,2-Dichloroethene	ug/L	530,000	620	210,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	56 Y	NA	NA	6	1 U	17 Y	2	8 [10]	290 Y
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Cyclohexane	ug/L	- -	- -	- -	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Dibromochloromethane	ug/L	- -	- -	110,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Dibromomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	- -	300,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Diethyl ether	ug/L	650,000	- -	61,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					10	10	10	10	10	10	10	10	10	10	10	81 & 85/86	81 & 85/86	81 & 85/86
Location ID:					20-105R	20-105R	20-500R	70-163	70-164R	RFI-10-03	RFI-10-11	RFI-10-26	RFI-10-32	RFI-10-33	RFI-10-37	07-01	86-100	87-FP3
Sample Depth():																		
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	09/17/13	06/05/13	06/07/13	06/07/13	06/05/13	06/05/13	06/05/13	06/07/13	06/07/13	06/05/13	06/06/13	06/05/13	06/05/13
Ethylbenzene	ug/L	43,000	18	170,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Hexachloroethane	ug/L	- -	6.7	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	29,000	28	56,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
m&p-Xylene	ug/L	- -	41	190,000	2 U	10 UY	2 U	10 UX [10 UX]	2 U	10 UY	NA	NA	2 U	2 U	10 UY	2 U	2 U [2 U]	40 UY
Methyl acetate	ug/L	- -	- -	- -	10 U	50 UY	10 U	50 UX [50 UX]	10 U	50 UY	NA	NA	10 U	10 U	50 UY	10 U	10 U [10 U]	200 UY
Methyl tert-butyl ether	ug/L	- -	7,100	47,000,000	5 U	30 UY	5 U	30 UX [30 UX]	5 U	30 UY	NA	NA	5 U	5 U	30 UY	5 U	5 U [5 U]	100 UY
Methylcyclohexane	ug/L	- -	- -	- -	20 U	100 UY	20 U	100 UX [100 UX]	20 U	100 UY	NA	NA	20 U	20 U	100 UY	20 U	20 U [20 U]	400 UY
Methylene Chloride	ug/L	- -	1,500	1,400,000	5 U	30 UY	5 U	30 UX [30 UX]	5 U	30 UY	NA	NA	5 U	5 U	30 UY	5 U	5 U [5 U]	100 UY
Naphthalene	ug/L	- -	11	31,000	5 U	5 UY	5 U	30 UX [30 UX]	5 U	30 UY	NA	NA	5 U	5 U	30 UY	5 U	5 U [5 U]	100 UY
n-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	- -	- -	- -	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
o-Xylene	ug/L	- -	41	190,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
p-Isopropyltoluene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	140,000	80	310,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
tert-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	- -	60	170,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	6	1 U [1 U]	40 Y
Tetrahydrofuran	ug/L	60,000	11,000	16,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	61,000	270	530,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
trans-1,2-Dichloroethene	ug/L	230,000	1,500	200,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	5 [6]	20 UY
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	- -	200	4,900	1 U	5 UY	1 U	5 UX [5 UX]	1 U	149 Y	NA	NA	1 U	1 U	171 Y	6	2 [2]	**1,660 Y**
Trichlorofluoromethane	ug/L	- -	- -	1,100,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	5 UY	NA	NA	1 U	1 U	5 UY	1 U	1 U [1 U]	20 UY
Vinyl Chloride	ug/L	33,000	13	13,000	1 U	5 UY	1 U	5 UX [5 UX]	1 U	**15 Y**	NA	NA	2	1 U	5 UY	1 U	5 [8]	**110 Y**
PCB																		
Aroclor-1016	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	- -	0.2	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					10	10	10	10	10	10	10	10	10	10	10	81 & 85/86	81 & 85/86	81 & 85/86
Location ID:					20-105R	20-105R	20-500R	70-163	70-164R	RFI-10-03	RFI-10-11	RFI-10-26	RFI-10-32	RFI-10-33	RFI-10-37	07-01	86-100	87-FP3
Sample Depth():																		
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	09/17/13	06/05/13	06/07/13	06/07/13	06/05/13	06/05/13	06/05/13	06/07/13	06/07/13	06/05/13	06/06/13	06/05/13	06/05/13
Inorganic																		
Antimony	ug/L	- -	130	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	- -	10	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Barium	ug/L	- -	1,300	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	- -	32	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	- -	4.8	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U [0.5 U]	NA
Calcium	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,700	NA
Chromium Total	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	- -	100	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	- -	22	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 [7]	NA
Cyanide (total)	ug/L	- -	5.2	- -	5 U	5 U	NA	NA	NA	**11**	5	5 U	NA	5 U	NA	NA	NA	NA
Lead	ug/L	- -	47	- -	3 U	3 U	NA	NA	NA	NA	NA	3 U	NA	3 U	NA	NA	19 [20]	NA
Manganese	ug/L	- -	4,900	- -	43	31	NA	738 [511]	NA	1,810	NA	NA	NA	54	NA	NA	155 [150]	NA
Mercury	ug/L	- -	0.0013	56	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA
Nickel	ug/L	- -	120	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA
Selenium	ug/L	- -	5	- -	5 U	5 U	NA	NA	**6**	NA	NA	5 U	NA	NA	NA	NA	5 U [5 U]	5 U
Silver	ug/L	- -	0.2	- -	0.5 U	0.5 U	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	NA	NA	0.5 U [0.5 U]	NA
Thallium	ug/L	- -	3.7	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	- -	27	- -	5 U	4 U	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	NA
Zinc	ug/L	- -	280	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9 [6]	NA

Notes:
FE - Flammability and Explosivity Screening Level
GSI - Groundwater/Surface Water Interface Criteria
NGVIA - Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria
NA - Not Analyzed
ug/L - micrograms per liter
Shaded and Bolded results exceeds one or more criteria.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X - Elevated reporting limit due to matrix interference.
Y - Elevated reporting limit due to high target concentration.

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 &85/86	16/40	16/40
Location ID:					87-FP5	RFI-02-08R	RFI-02-08R	RFI-81-11	RFI-81-12R	RFI-81-33	RFI-81-33	RFI-81-51	RFI-86-06S	RFI-86-06S	RFI-86-08R	40-304	40-305
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	06/06/13	09/26/13	06/05/13	06/05/13	06/05/13	09/17/13	06/05/13	06/05/13	11/01/13	06/05/13	06/06/13	06/06/13
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	96,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,1,1-Trichloroethane	ug/L	- -	89	1,300,000	1 U	NA	NA	1 U	NA	NA	NA	2	1 U	1 U	1 U	1 U [1 U]	NA
1,1,2,2-Tetrachloroethane	ug/L	- -	78	77,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	32	170,000	30 U	NA	NA	30 U	NA	NA	NA	30 U	30 U	NA	30 U	30 U [30 U]	NA
1,1,2-Trichloroethane	ug/L	- -	330	110,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,1-Dichloroethane	ug/L	380,000	740	2,300,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	12	1 U [1 U]	NA
1,1-Dichloroethene	ug/L	97,000	130	1,300	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	- -	18,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	99	300,000	2 U	NA	NA	2 U	NA	NA	NA	2 U	2 U	5 U	2 U	2 U [2 U]	NA
1,2,4-Trimethylbenzene	ug/L	56,000	17	56,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	1,200	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	5 U	1 U	1 U [1 U]	NA
1,2-Dibromoethane	ug/L	- -	5.7	15,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,2-Dichlorobenzene	ug/L	- -	13	160,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,2-Dichloroethane	ug/L	2,500,000	360	59,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,2-Dichloropropane	ug/L	550,000	230	36,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,3,5-Trimethylbenzene	ug/L	- -	45	61,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	28	41,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
1,4-Dichlorobenzene	ug/L	- -	17	74,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
2-Butanone	ug/L	- -	2,200	240,000,000	20 U	NA	NA	20 U	NA	NA	NA	20 U	20 U	25 U	20 U	20 U [20 U]	NA
2-Hexanone	ug/L	- -	- -	8,700,000	50 U	NA	NA	50 U	NA	NA	NA	50 U	50 U	50 U	50 U	50 U [50 U]	NA
2-Methylnaphthalene	ug/L	- -	19	25,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	- -	20,000,000	10 U	NA	NA	10 U	NA	NA	NA	10 U	10 U	50 U	10 U	10 U [10 U]	NA
Acetone	ug/L	15,000,000	1,700	1,000,000,000	30	NA	NA	20 U	NA	NA	NA	20 U	20 U	50 U	20 U	20 U [20 U]	NA
Acrylonitrile	ug/L	6,400,000	2	190,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA
Benzene	ug/L	68,000	200	35,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	5	1 U [1 U]	NA
Bromobenzene	ug/L	- -	- -	390,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Bromochloromethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Bromodichloromethane	ug/L	- -	- -	37,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Bromoform	ug/L	- -	- -	3,100,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Bromomethane	ug/L	- -	35	9,000	2 U	NA	NA	2 U	NA	NA	NA	2 U	2 U	5 U	2 U	2 U [2 U]	NA
Carbon Disulfide	ug/L	13,000	- -	550,000	5 U	NA	NA	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U [5 U]	NA
Carbon Tetrachloride	ug/L	- -	45	2,400	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Chlorobenzene	ug/L	160,000	25	470,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Chloroethane	ug/L	110,000	1,100	5,700,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	5 U	1 U	1 U [1 U]	NA
Chloroform	ug/L	- -	350	180,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Chloromethane	ug/L	36,000	- -	45,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	5 U	1 U	1 U [1 U]	NA
cis-1,2-Dichloroethene	ug/L	530,000	620	210,000	62	NA	NA	1 U	NA	NA	NA	1	1 U	1 U	3	6 [6]	NA
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Cyclohexane	ug/L	- -	- -	- -	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	NA	1 U	1 U [1 U]	NA
Dibromochloromethane	ug/L	- -	- -	110,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	5 U	1 U	1 U [1 U]	NA
Dibromomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	- -	300,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	5 U	1 U	1 U [1 U]	NA
Diethyl ether	ug/L	650,000	- -	61,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 &85/86	16/40	16/40
Location ID:					87-FP5	RFI-02-08R	RFI-02-08R	RFI-81-11	RFI-81-12R	RFI-81-33	RFI-81-33	RFI-81-51	RFI-86-06S	RFI-86-06S	RFI-86-08R	40-304	40-305
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	06/06/13	09/26/13	06/05/13	06/05/13	06/05/13	09/17/13	06/05/13	06/05/13	11/01/13	06/05/13	06/06/13	06/06/13
Ethylbenzene	ug/L	43,000	18	170,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1	1 U [1 U]	NA
Hexachloroethane	ug/L	- -	6.7	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Iodomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Isopropylbenzene	ug/L	29,000	28	56,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	5 U	1 U	1 U [1 U]	NA
m&p-Xylene	ug/L	- -	41	190,000	2 U	NA	NA	2 U	NA	NA	NA	2 U	2 U	2 U	3	2 U [2 U]	NA
Methyl acetate	ug/L	- -	- -	- -	10 U	NA	NA	10 U	NA	NA	NA	10 U	10 U	NA	10 U	10 U [10 U]	NA
Methyl tert-butyl ether	ug/L	- -	7,100	47,000,000	5 U	NA	NA	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U [5 U]	NA
Methylcyclohexane	ug/L	- -	- -	- -	20 U	NA	NA	20 U	NA	NA	NA	20 U	20 U	NA	20 U	20 U [20 U]	NA
Methylene Chloride	ug/L	- -	1,500	1,400,000	5 U	NA	NA	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U [5 U]	NA
Naphthalene	ug/L	- -	11	31,000	5 U	NA	NA	5 U	NA	NA	NA	5 U	5 U	5 U	**34**	5 U [5 U]	NA
n-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
n-Propylbenzene	ug/L	- -	- -	- -	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
o-Xylene	ug/L	- -	41	190,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
p-Isopropyltoluene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
sec-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Styrene	ug/L	140,000	80	310,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
tert-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Tetrachloroethene	ug/L	- -	60	170,000	1 U	NA	NA	1 U	NA	NA	NA	8	1 U	1 U	1 U	1 U [1 U]	NA
Tetrahydrofuran	ug/L	60,000	11,000	16,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA
Toluene	ug/L	61,000	270	530,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
trans-1,2-Dichloroethene	ug/L	230,000	1,500	200,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	8	1 U [1 U]	NA
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Trichloroethene	ug/L	- -	200	4,900	34	NA	NA	1 U	NA	NA	NA	61	5	7	2	1 U [1 U]	NA
Trichlorofluoromethane	ug/L	- -	- -	1,100,000	1 U	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	NA
Vinyl Chloride	ug/L	33,000	13	13,000	5	NA	NA	1 U	NA	NA	NA	1 U	1 U	1 U	2	3 [3]	NA
PCB																	
Aroclor-1016	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Aroclor-1221	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Aroclor-1232	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Aroclor-1242	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Aroclor-1248	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Aroclor-1254	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Aroclor-1260	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA
Total PCBs	ug/L	- -	0.2	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 & 85/86	81 &85/86	16/40	16/40
Location ID:					87-FP5	RFI-02-08R	RFI-02-08R	RFI-81-11	RFI-81-12R	RFI-81-33	RFI-81-33	RFI-81-51	RFI-86-06S	RFI-86-06S	RFI-86-08R	40-304	40-305
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/05/13	06/06/13	09/26/13	06/05/13	06/05/13	06/05/13	09/17/13	06/05/13	06/05/13	11/01/13	06/05/13	06/06/13	06/06/13
Inorganic																	
Antimony	ug/L	- -	130	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	- -	10	- -	2 U	2 U	4	4	NA	NA	NA	NA	NA	NA	**29**	NA	NA
Barium	ug/L	- -	1,300	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	- -	32	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	- -	4.8	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	- -	100	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	- -	22	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	- -	5.2	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	**9**
Lead	ug/L	- -	47	- -	NA	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	NA	3 U
Manganese	ug/L	- -	4,900	- -	NA	NA	NA	87	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	- -	0.0013	56	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA
Nickel	ug/L	- -	120	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	- -	5	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Silver	ug/L	- -	0.2	- -	NA	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	- -	3.7	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	- -	27	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	- -	280	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
FE - Flammability and Explosivity Screening Level
GSI - Groundwater/Surface Water Interface Criteria
NGVIA - Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria
NA - Not Analyzed
ug/L - micrograms per liter
Shaded and Bolded results exceeds one or more criteria.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X - Elevated reporting limit due to matrix interference.
Y - Elevated reporting limit due to high target concentration.

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					16/40	16/40	16/40	84/94	84/94	84/94	84/94	84/94	09	09	09	09	09
Location ID:					RFI-40-03	RFI-40-03	RFI-40-09	RFI-84-06R	RFI-84-10D	RFI-84-10S	RFI-94-02R	RFI-94-02R	RFI-09-04R	RFI-09-08	RFI-09-08	RFI-09-36R	RFI-09-36R
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/06/13	09/26/13	06/06/13	06/05/13	06/05/13	06/05/13	06/05/13	09/26/13	06/06/13	06/06/13	09/19/13	06/06/13	09/19/13
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	96,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	- -	89	1,300,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	32	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	- -	78	77,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	32	170,000	200 UX	30 U	6,000 UY	NA	30 U [30 U]	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	- -	330	110,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
1,1-Dichloroethane	ug/L	380,000	740	2,300,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	97,000	130	1,300	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	5	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	- -	18,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	99	300,000	10 UX	2 U	400 UY	NA	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	56,000	17	56,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	1,200	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	- -	5.7	15,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	- -	13	160,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	2,500,000	360	59,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
1,2-Dichloropropane	ug/L	550,000	230	36,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	- -	45	61,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	28	41,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	- -	17	74,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	- -	2,200	240,000,000	100 UX	20 U	4,000 UY	NA	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Hexanone	ug/L	- -	- -	8,700,000	300 UX	50 U	10,000 UY	NA	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 US	50 U	50 U
2-Methylnaphthalene	ug/L	- -	19	25,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	- -	20,000,000	50 UX	10 U	2,000 UY	NA	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 US	10 U	10 U
Acetone	ug/L	15,000,000	1,700	1,000,000,000	100 UX	20 U	4,000 UY	NA	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acrylonitrile	ug/L	6,400,000	2	190,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	68,000	200	35,000	5 UX	1 U	**9,200 Y**	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
Bromobenzene	ug/L	- -	- -	390,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	- -	37,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
Bromoform	ug/L	- -	- -	3,100,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	- -	35	9,000	10 UX	2 U	400 UY	NA	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon Disulfide	ug/L	13,000	- -	550,000	30 UX	5 U	1,000 UY	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	- -	45	2,400	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
Chlorobenzene	ug/L	160,000	25	470,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	110,000	1,100	5,700,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	ug/L	- -	350	180,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	36,000	- -	45,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	530,000	620	210,000	6 X	13	200 UY	NA	21 [21]	1 U	1 U	3	1	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
Cyclohexane	ug/L	- -	- -	- -	5 UX	1 U	200 Y	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	3	1 U	1
Dibromochloromethane	ug/L	- -	- -	110,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	- -	300,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	650,000	- -	61,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					16/40	16/40	16/40	84/94	84/94	84/94	84/94	84/94	09	09	09	09	09
Location ID:					RFI-40-03	RFI-40-03	RFI-40-09	RFI-84-06R	RFI-84-10D	RFI-84-10S	RFI-94-02R	RFI-94-02R	RFI-09-04R	RFI-09-08	RFI-09-08	RFI-09-36R	RFI-09-36R
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/06/13	09/26/13	06/06/13	06/05/13	06/05/13	06/05/13	06/05/13	09/26/13	06/06/13	06/06/13	09/19/13	06/06/13	09/19/13
Ethylbenzene	ug/L	43,000	18	170,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	- -	6.7	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	29,000	28	56,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m&p-Xylene	ug/L	- -	41	190,000	10 UX	2 U	400 UY	NA	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	- -	- -	- -	50 UX	10 U	2,000 UY	NA	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	ug/L	- -	7,100	47,000,000	30 UX	5 U	1,000 UY	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	- -	- -	- -	100 UX	20 U	4,000 UY	NA	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 US	20 U	20 U
Methylene Chloride	ug/L	- -	1,500	1,400,000	30 UX	5 U	1,000 UY	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	- -	11	31,000	30 UX	1 U	1,000 UY	NA	5 U [5 U]	5 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U
n-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	- -	- -	- -	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	- -	41	190,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	140,000	80	310,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	- -	60	170,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
Tetrahydrofuran	ug/L	60,000	11,000	16,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	61,000	270	530,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
trans-1,2-Dichloroethene	ug/L	230,000	1,500	200,000	5 UX	1	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 US	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	- -	200	4,900	5 UX	2	200 UY	NA	1 U [1 U]	1 U	1 U	**1,014 E**	8	1 U	1 US	1 U	1 U
Trichlorofluoromethane	ug/L	- -	- -	1,100,000	5 UX	1 U	200 UY	NA	1 U [1 U]	1 U	1 U	1 U	3	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	33,000	13	13,000	5 UX	6	200 UY	NA	**15 [19]**	1 U	1 U	1 U	1 U	1 U	1 U	2	2
PCB																	
Aroclor-1016	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	- -	0.2	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					16/40	16/40	16/40	84/94	84/94	84/94	84/94	84/94	09	09	09	09	09
Location ID:					RFI-40-03	RFI-40-03	RFI-40-09	RFI-84-06R	RFI-84-10D	RFI-84-10S	RFI-94-02R	RFI-94-02R	RFI-09-04R	RFI-09-08	RFI-09-08	RFI-09-36R	RFI-09-36R
Sample Depth():																	
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/06/13	09/26/13	06/06/13	06/05/13	06/05/13	06/05/13	06/05/13	09/26/13	06/06/13	06/06/13	09/19/13	06/06/13	09/19/13
Inorganic																	
Antimony	ug/L	- -	130	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	- -	10	- -	NA	NA	**212**	NA	**19 [17]**	**11**	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	- -	1,300	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	- -	32	- -	NA	NA	1 U	NA	1 U [1 U]	1 U	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	- -	4.8	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	- -	100	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	- -	22	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	- -	5.2	- -	NA	NA	**10**	**96**	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	- -	47	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	- -	4,900	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	- -	0.0013	56	NA	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	- -	120	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	- -	5	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	- -	0.2	- -	NA	NA	0.5 U	NA	0.5 U [0.5 U]	0.5 U	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	- -	3.7	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	- -	27	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	- -	280	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
FE - Flammability and Explosivity Screening Level
GSI - Groundwater/Surface Water Interface Criteria
NGVIA - Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria
NA - Not Analyzed
ug/L - micrograms per liter
Shaded and Bolded results exceeds one or more criteria.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X - Elevated reporting limit due to matrix interference.
Y - Elevated reporting limit due to high target concentration.

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					09	09	09	09	09
Location ID:					RFI-09-46	RFI-09-48	RFI-09-53	RFI-09-55S	RFI-09-55S
Sample Depth():									
Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	06/07/13	06/07/13	06/06/13	06/07/13	11/01/13
VOC									
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	96,000	NA	NA	NA	NA	5 UX
1,1,1-Trichloroethane	ug/L	- -	89	1,300,000	1 U	1 U [1 U]	36	1 U	5 UX
1,1,2,2-Tetrachloroethane	ug/L	- -	78	77,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	32	170,000	30 U	30 U [30 U]	30 U	30 U	NA
1,1,2-Trichloroethane	ug/L	- -	330	110,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,1-Dichloroethane	ug/L	380,000	740	2,300,000	1 U	1 U [1 U]	22	1 U	5 UX
1,1-Dichloroethene	ug/L	97,000	130	1,300	1 U	1 U [1 U]	1 U	1 U	5 UX
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	30 UX
1,2,3-Trichloropropane	ug/L	- -	- -	18,000	NA	NA	NA	NA	5 UX
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	8 X
1,2,4-Trichlorobenzene	ug/L	- -	99	300,000	2 U	2 U [2 U]	2 U	2 U	30 UX
1,2,4-Trimethylbenzene	ug/L	56,000	17	56,000	NA	NA	NA	NA	**19 X**
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	1,200	1 U	1 U [1 U]	1 U	1 U	30 UX
1,2-Dibromoethane	ug/L	- -	5.7	15,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,2-Dichlorobenzene	ug/L	- -	13	160,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,2-Dichloroethane	ug/L	2,500,000	360	59,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,2-Dichloropropane	ug/L	550,000	230	36,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,3,5-Trimethylbenzene	ug/L	- -	45	61,000	NA	NA	NA	NA	5 UX
1,3-Dichlorobenzene	ug/L	- -	28	41,000	1 U	1 U [1 U]	1 U	1 U	5 UX
1,4-Dichlorobenzene	ug/L	- -	17	74,000	1 U	1 U [1 U]	1 U	1 U	5 UX
2-Butanone	ug/L	- -	2,200	240,000,000	20 U	20 U [20 U]	20 U	20 U	130 UX
2-Hexanone	ug/L	- -	- -	8,700,000	50 U	50 U [50 U]	50 U	50 U	250 UX
2-Methylnaphthalene	ug/L	- -	19	25,000	NA	NA	NA	NA	30 UX
4-Methyl-2-pentanone	ug/L	- -	- -	20,000,000	10 U	10 U [10 U]	10 U	10 U	250 UX
Acetone	ug/L	15,000,000	1,700	1,000,000,000	20 U	20 U [20 U]	20 U	30 UX	250 UX
Acrylonitrile	ug/L	6,400,000	2	190,000	NA	NA	NA	NA	10 UX
Benzene	ug/L	68,000	200	35,000	1 U	1 U [1 U]	1 U	1 U	5 UX
Bromobenzene	ug/L	- -	- -	390,000	NA	NA	NA	NA	5 UX
Bromochloromethane	ug/L	- -	- -	- -	NA	NA	NA	NA	5 UX
Bromodichloromethane	ug/L	- -	- -	37,000	1 U	1 U [1 U]	1 U	1 U	5 UX
Bromoform	ug/L	- -	- -	3,100,000	1 U	1 U [1 U]	1 U	1 U	5 UX
Bromomethane	ug/L	- -	35	9,000	2 U	2 U [2 U]	2 U	2 U	30 UX
Carbon Disulfide	ug/L	13,000	- -	550,000	5 U	5 U [5 U]	5 U	5 U	30 UX
Carbon Tetrachloride	ug/L	- -	45	2,400	1 U	1 U [1 U]	1 U	1 U	5 UX
Chlorobenzene	ug/L	160,000	25	470,000	1 U	1 U [1 U]	1 U	1 U	5 UX
Chloroethane	ug/L	110,000	1,100	5,700,000	1 U	1 U [1 U]	1 U	1 U	30 UX
Chloroform	ug/L	- -	350	180,000	1 U	1 U [1 U]	2	1 U	5 UX
Chloromethane	ug/L	36,000	- -	45,000	1 U	1 U [1 U]	1 U	1 U	30 UX
cis-1,2-Dichloroethene	ug/L	530,000	620	210,000	1 U	1 U [1 U]	20	1 U	5 UX
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	1 U	1 U [1 U]	1 U	1 U	5 UX
Cyclohexane	ug/L	- -	- -	- -	50	1 U [1 U]	1 U	137	NA
Dibromochloromethane	ug/L	- -	- -	110,000	1 U	1 U [1 U]	1 U	1 U	30 UX
Dibromomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	30 UX
Dichlorodifluoromethane	ug/L	- -	- -	300,000	1 U	1 U [1 U]	1 U	1 U	30 UX
Diethyl ether	ug/L	650,000	- -	61,000,000	NA	NA	NA	NA	50 UX

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					09	09	09	09	09
Location ID: / Sample Depth(): / Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	RFI-09-46 06/07/13	RFI-09-48 06/07/13	RFI-09-53 06/06/13	RFI-09-55S 06/07/13	RFI-09-55S 11/01/13
Ethylbenzene	ug/L	43,000	18	170,000	1 U	1 U [1 U]	1 U	6	**25 X**
Hexachloroethane	ug/L	- -	6.7	50,000	NA	NA	NA	NA	30 UX
Iodomethane	ug/L	- -	- -	- -	NA	NA	NA	NA	5 UX
Isopropylbenzene	ug/L	29,000	28	56,000	4	1 U [1 U]	1 U	3	30 UX
m&p-Xylene	ug/L	- -	41	190,000	5	2 U [2 U]	2 U	5	20 X
Methyl acetate	ug/L	- -	- -	- -	10 U	10 U [10 U]	10 U	10 U	NA
Methyl tert-butyl ether	ug/L	- -	7,100	47,000,000	5 U	5 U [5 U]	5 U	5 U	30 UX
Methylcyclohexane	ug/L	- -	- -	- -	20 U	20 U [20 U]	20 U	140	NA
Methylene Chloride	ug/L	- -	1,500	1,400,000	5 U	5 U [5 U]	5 U	5 U	30 UX
Naphthalene	ug/L	- -	11	31,000	6	5 U [5 U]	5 U	5 U	30 UX
n-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	5 UX
n-Propylbenzene	ug/L	- -	- -	- -	3	1 U [1 U]	1 U	4	9 X
o-Xylene	ug/L	- -	41	190,000	1	1 U [1 U]	1 U	1 U	5 UX
p-Isopropyltoluene	ug/L	- -	- -	- -	NA	NA	NA	NA	30 UX
sec-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	5 UX
Styrene	ug/L	140,000	80	310,000	1 U	1 U [1 U]	1 U	1 U	5 UX
tert-Butylbenzene	ug/L	- -	- -	- -	NA	NA	NA	NA	5 UX
Tetrachloroethene	ug/L	- -	60	170,000	1 U	1 U [1 U]	1 U	1 U	5 UX
Tetrahydrofuran	ug/L	60,000	11,000	16,000,000	NA	NA	NA	NA	450 UX
Toluene	ug/L	61,000	270	530,000	2	1 U [1 U]	1 U	1 U	5 UX
trans-1,2-Dichloroethene	ug/L	230,000	1,500	200,000	1 U	1 U [1 U]	1 U	1 U	5 UX
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	1 U	1 U [1 U]	1 U	1 U	5 UX
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	NA	NA	NA	NA	5 UX
Trichloroethene	ug/L	- -	200	4,900	1 U	1 U [1 U]	31	1 U	5 UX
Trichlorofluoromethane	ug/L	- -	- -	1,100,000	1 U	1 U [1 U]	1 U	1 U	5 UX
Vinyl Chloride	ug/L	33,000	13	13,000	1 U	1 U [1 U]	3	1 U	5 UX
PCB									
Aroclor-1016	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Total PCBs	ug/L	- -	0.2	45	NA	NA	NA	NA	NA

Table 10 **June, September and November 2013 Groundwater Sampling Results, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Groundwater Monitoring Impact Area					09	09	09	09	09
Location ID: / Sample Depth(): / Date Collected:	Units	FE (2013)	GSI (2013)	IGVIA (2013)	RFI-09-46 06/07/13	RFI-09-48 06/07/13	RFI-09-53 06/06/13	RFI-09-55S 06/07/13	RFI-09-55S 11/01/13
Inorganic									
Antimony	ug/L	- -	130	- -	NA	5 U	NA	NA	NA
Arsenic	ug/L	- -	10	- -	NA	**23 [24]**	NA	NA	NA
Barium	ug/L	- -	1,300	- -	NA	149	NA	NA	NA
Beryllium	ug/L	- -	32	- -	NA	1 U	NA	NA	NA
Cadmium	ug/L	- -	4.8	- -	NA	0.5 U	NA	NA	NA
Calcium	ug/L	- -	- -	- -	NA	NA	NA	NA	NA
Chromium Total	ug/L	- -	- -	- -	NA	5 U [5 U]	NA	NA	NA
Cobalt	ug/L	- -	100	- -	NA	5 U	NA	NA	NA
Copper	ug/L	- -	22	- -	NA	4 U	NA	NA	NA
Cyanide (total)	ug/L	- -	5.2	- -	NA	5 U [5 U]	NA	NA	NA
Lead	ug/L	- -	47	- -	NA	3 U	NA	NA	NA
Manganese	ug/L	- -	4,900	- -	NA	428 [430]	NA	150	146
Mercury	ug/L	- -	0.0013	56	NA	0.2 U	NA	NA	NA
Nickel	ug/L	- -	120	- -	NA	19	NA	NA	NA
Selenium	ug/L	- -	5	- -	NA	5 U	NA	NA	NA
Silver	ug/L	- -	0.2	- -	NA	0.5 U [0.5 U]	NA	NA	NA
Thallium	ug/L	- -	3.7	- -	NA	2 U	NA	NA	NA
Vanadium	ug/L	- -	27	- -	NA	5 U [5 U]	NA	NA	NA
Zinc	ug/L	- -	280	- -	NA	5 U	NA	NA	NA

Notes:
FE - Flammability and Explosivity Screening Level
GSI - Groundwater/Surface Water Interface Criteria
NGVIA - Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria
NA - Not Analyzed
ug/L - micrograms per liter
Shaded and Bolded results exceeds one or more criteria.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
X - Elevated reporting limit due to matrix interference.
Y - Elevated reporting limit due to high target concentration.

Table 11 **2014 Proposed Groundwater Monitoring Plan, 2013 CMI Annual Report**
RACER Trust Buick City Site, Flint, Michigan

Proposed Sampling Location	Sampling Area	Analytical Parameters	Bulkheaded Location	Sampling Rationale
36-FP1	Factory 36	VOCs, arsenic	yes	Evaluate dissolved-phase exceedances; monitoring well located within VOC plume and located on-site.
RFI-36-08	Factory 36	VOCs	yes	Monitor dissolved-phase concentrations.
RFI-36-20	Factory 36	VOCs, mercury	no	Evaluate dissolved-phase concentrations downgradient of exceedances and off-site.
RFI-36-37	Factory 36	VOCs, arsenic	no	Evaluate dissolved-phase concentrations cross-gradient of exceedances and downgradient of LNAPL footprint.
RFI-36-44	Factory 36	VOCs, arsenic	no	Evaluate dissolved-phase exceedances; monitoring well located within VOC plume and located off-site.
RFI-36-47	Factory 36	VOCs, arsenic, chromium, manganese, silver, and vanadium	no	Evaluate dissolved-phase concentrations off-site.
RFI-36-55R	Factory 36	VOCs, arsenic	no	Evaluate dissolved-phase concentrations downgradient of exceedances and off-site.
RFI-36-56	Factory 36	VOCs, arsenic	no	Evaluate dissolved-phase concentrations cross-gradient of exceedances.
70-163	Factory 10	VOCs and manganese	no	Evaluate dissolved-phase concentrations downgradient of exceedances and off-site.
70-164	Factory 10	VOCs and selenium	no	Evaluate disolved-phase concentrations downgradient to property line and LNAPL footprint.
RFI-10-32	Factory 10	VOCs, arsenic, cyanide, selenium and silver	no	Evaluate dissolved-phase concentrations off-site.
RFI-10-33	Factory 10	VOCs, cyanide, lead, manganese, silver, and vanadium	no	Evaluate dissolved-phase concentrations at property boundary.
RFI-10-37	Factory 10	VOCs	no	Evaluate dissolved-phase exceedances; monitoring well located within VOC plume and located adjacent to property line.
07-01	Factory 81 and 85/86	VOCs	no	Evaluate disolved-phase concentrations downgradient of LNAPL footprint.
87-FP3	Factory 81 and 85/86	VOCs, arsenic, and selenium	no	Evaluate dissolved-phase exceedances; monitoring well located within VOC plume and at property boundary.
87-FP5	Factory 81 and 85/86	VOCs, arsenic, and selenium	no	Evaluate dissolved-phase concentrations in area, and near LNAPL plume observed near property boundary.
RFI-02-08R	Factory 81 and 85/86	VOCs and arsenic	yes	Evaluate dissolved-phase concentrations downgradient of plume.
RFI-86-02	Factory 81 and 85/86	VOCs and arsenic	no	LNAPL observed in well - only sample if LNAPL not present
RFI-86-06S	Factory 81 and 85/86	VOCs and arsenic	no	Evaluate disolved-phase concentrations downgradient to property line and LNAPL footprint.
RFI-86-08R	Factory 81 and 85/86	VOCs, arsenic, and selenium	no	Evaluate Dissolved-phase exceedances; monitoring groundwater cross-gradient of LNAPL footprint and evaluate at property boundary.
40-304	Factory 16/40	VOCs and PCBs	yes	Due to the distance to river will continue to monitor dissolved-phase concentrations downgradient of LNAPL footprint.
40-305	Factory 16/40	Cyanide	yes	Due to distance to river will continue to monitor dissolved-phase exceedences at well.
RFI-40-03	Factory 16/40	VOCs	yes	Due to distance to river will continue to monitor dissolved-phase exceedences at well.
RFI-40-07	Factory 16/40	VOCs, arsenic, beryllium, cyanide, mercury, and silver	yes	Due to distance to river will continue to evaluate dissolved-phase concentrations downgradient of exceedances.
RFI-40-09	Factory 16/40	VOCs, arsenic and cyanide	yes	Due to the distance to river will continue to monitor dissolved-phase concentration exceedances and evaluate groundwater downgradient of LNAPL footprint.
RFI-40-25	Factory 16/40	VOCs, arsenic and cyanide	yes	Due to distance to river will continue to monitor dissolved-phase exceedences at well.
RFI-09-48	Factory 84/94	VOCs, arsenic and cyanide	yes	Due to distance to river will continue to monitor dissolved-phase exceedences at well.
RFI-84-06R	Factory 84/94	Cyanide	yes	Due to distance to river will continue to monitor dissolved-phase exceedences at well.
RFI-84-09S	Factory 84/94	VOCs, arsenic and cyanide	yes	Due to distance to river will continue to evaluate dissolved-phase concentrations downgradient of exceedances.
RFI-84-09D	Factory 84/94	VOCs, arsenic and cyanide	yes	Due to distance to river will continue to evaluate dissolved-phase concentrations downgradient of exceedances.
RFI-17-02S	Factory 84/94	VOCs, arsenic and cyanide	yes	Due to distance to river will monitor dissolved-phase exceedences at well.
RFI-17-02D	Factory 84/94	VOCs, arsenic and cyanide	yes	Due to distance to river will monitor dissolved-phase exceedences at well.
RFI-94-02	Factory 84/94	VOCs	yes	Due to distance to river will continue to monitor dissolved-phase exceedences at well.
RFI-94-10	Factory 84/94	VOCs	no	Due to distance to river will continue to evaluate dissolved-phase concentrations downgradient of exceedances.
RFI-09-08	Building 09	VOCs	no	Evaluate dissolved-phase concentrations at property boundary.
RFI-09-44	Building 09	VOCs	no	Evaluate disolved-phase concentrations downgradient of LNAPL footprint.
RFI-09-47	Building 09	VOCs	no	Evaluate disolved-phase concentrations downgradient of LNAPL footprint.
RFI-09-53	Building 09	VOCs	no	Evaluate dissolved-phase concentrations at property boundary.
RFI-09-55S	Building 09	VOCs	no	Due to distance to river will continue to monitor dissolved-phase exceedences at well.

Notes:
LNAPL = light nonaqueous phase liquid
VOCs = volatile organic compounds
PCBs = Polychlorinated Biphenyls

Table 12 **Off Site Soil Excavation – Benzo(a)pyrene Confirmation Samples**
2013 CMI Report
RACER Trust, Buick City Site, Flint, Michigan

Location ID: / Date Collected:	Units	NDC	AOI-09A-ABFL-01 09/06/13	AOI-09A-ABFL-02 09/06/13	AOI-09A-ABFL-03 09/06/13	AOI-09A-ABFL-04 09/06/13	AOI-09A-ABFL-05 09/06/13	AOI-09A-ABFL-06 09/06/13	AOI-09A-ABFL-07 09/06/13	AOI-09A-ABFL-08 09/06/13	AOI-09A-ABFL-09 09/06/13
Detected SVOC											
1-Methylnaphthalene	mg/kg	- -	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	mg/kg	26,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthylene	mg/kg	5,200	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	mg/kg	730,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)anthracene	mg/kg	80	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)pyrene	mg/kg	8	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(b)fluoranthene	mg/kg	80	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	mg/kg	7,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(k)fluoranthene	mg/kg	800	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chrysene	mg/kg	8,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenzo(a,h)anthracene	mg/kg	8	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluoranthene	mg/kg	130,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluorene	mg/kg	87,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	mg/kg	52,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	mg/kg	5,200	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	mg/kg	84,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Detected Miscellaneous											
Total Solids	mg/kg	- -	910,000	920,000	900,000	900,000	950,000	940,000	940,000	960,000	920,000

Notes:
NDC - Nonresidential Direct Contact Criteria
Shaded and bolded results exceed NDC criteria.
mg/kg - milligram peg kilogram
p - benzo(b)fluoranthene and benzo(k)fluoranthene integrated as one peak.
X - Elevated reporting limit due to matrix interference

Table 12 **Off Site Soil Excavation – Benzo(a)pyrene Confirmation Samples**
2013 CMI Report
RACER Trust, Buick City Site, Flint, Michigan

Location ID: / Date Collected:	Units	NDC	AOI-09A-ABFL-10 09/06/13	AOI-09A-ABFL-11 09/06/13	AOI-09A-ABFL-12 09/11/13	AOI-09A-ABFL-13 09/11/13	AOI-09A-ABFL-14 09/11/13	AOI-09A-ABFL-15 09/12/13	AOI-09A-ABFL-16 09/18/13	AOI-09A-ABSW-01 09/06/13	AOI-09A-ABSW-02 09/06/13
Detected SVOC											
1-Methylnaphthalene	mg/kg	- -	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	mg/kg	26,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.5
Acenaphthylene	mg/kg	5,200	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	mg/kg	730,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.5	0.8
Benzo(a)anthracene	mg/kg	80	0.3 U	1	0.4	0.3 U	0.3	1	0.3 U	2	3.1
Benzo(a)pyrene	mg/kg	8	0.3 U	1.1	0.4	0.3 U	0.3	1.3	0.3 U	2.4	3.6
Benzo(b)fluoranthene	mg/kg	80	0.3 U	1.9 p	0.7 p	0.4 p	0.5 p	2.2 p	0.3 U	4 p	5.4 p
Benzo(g,h,i)perylene	mg/kg	7,000	0.3 U	0.6	0.3	0.3 U	0.3 U	1	0.3 U	1.1	2.8
Benzo(k)fluoranthene	mg/kg	800	0.3 U	2.1 p	0.8 p	0.5 p	0.6 p	2.5 p	0.3 U	4.5 p	6.1 p
Chrysene	mg/kg	8,000	0.3 U	1	0.4	0.3 U	0.3	0.9	0.3 U	2.1	3.3
Dibenzo(a,h)anthracene	mg/kg	8	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3	0.3 U	0.3	1
Fluoranthene	mg/kg	130,000	0.3 U	2.3	0.7	0.3	0.6	1.1	0.3 U	4.7	6.9
Fluorene	mg/kg	87,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	0.3 U	0.6	0.3 U	0.3 U	0.3 U	0.9	0.3 U	1.1	2.2
Naphthalene	mg/kg	52,000	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	mg/kg	5,200	0.3 U	1.2	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	2.3	3.5
Pyrene	mg/kg	84,000	0.3 U	2.1	0.5	0.3 U	0.5	1	0.3 U	4.3	6
Detected Miscellaneous											
Total Solids	mg/kg	- -	910,000	900,000	910,000	900,000	900,000	920,000	950,000	870,000	850,000

Notes:
NDC - Nonresidential Direct Contact Criteria
Shaded and bolded results exceed NDC criteria.
mg/kg - milligram peg kilogram
p - benzo(b)fluoranthene and benzo(k)fluoranthene integrated as one peak.
X - Elevated reporting limit due to matrix interference

Table 12 **Off Site Soil Excavation – Benzo(a)pyrene Confirmation Samples**
2013 CMI Report
RACER Trust, Buick City Site, Flint, Michigan

Location ID: / Date Collected:	Units	NDC	AOI-09A-ABSW-03 09/06/13	AOI-09A-ABSW-04 09/06/13	AOI-09A-ABSW-05 09/06/13	AOI-09A-ABSW-06 09/06/13	AOI-09A-ABSW-07 09/06/13	AOI-09A-ABSW-08 09/06/13	AOI-09A-ABSW-09 09/06/13	AOI-09A-ABSW-10 09/06/13	AOI-09A-ABSW-11 09/11/13
Detected SVOC											
1-Methylnaphthalene	mg/kg	- -	0.6 UX	0.3 U	0.5 UX	0.5 UX	0.3 U	2.2 Y	3.6 UY	0.3 U	0.3 U
2-Methylnaphthalene	mg/kg	26,000	0.6 UX	0.3 U	0.5 UX	0.5 UX	0.3 U	3.3 Y	3.6 UY	0.3 U	0.3 U
Acenaphthylene	mg/kg	5,200	0.6 UX	0.3 U	0.5 UX	0.5 UX	0.3 U	2.1 UY	42.5 Y	0.3 U	0.3 U
Anthracene	mg/kg	730,000	0.6 UX	0.3 U	0.5 UX	0.5 UX	0.3 U	37.5 Y	17.1 Y	0.8	0.3 U
Benzo(a)anthracene	mg/kg	80	1.2 X	0.7	3.4 X	0.9 X	1.4	**125.4 Y**	**189.6 Y**	2.8	0.5
Benzo(a)pyrene	mg/kg	8	1.7 X	0.9	5.1 X	1.2 X	1.5	**119.3 Y**	**205.6 Y**	3.1	0.6
Benzo(b)fluoranthene	mg/kg	80	3.7 Xp	1.7 p	11.3 pX	2.9 Xp	2.4 p	**251.8 Yp**	**411.5 Yp**	5.5 p	1.1 p
Benzo(g,h,i)perylene	mg/kg	7,000	0.8 X	0.7	2.4 X	0.5 X	1	44.2 Y	69.8 Y	1.1	0.4
Benzo(k)fluoranthene	mg/kg	800	3.6 Xp	1.9 p	11 pX	2.8 Xp	2.6 p	244.7 Yp	399.4 Yp	6.1 p	1.3 p
Chrysene	mg/kg	8,000	1.4 X	0.9	4.4 X	1.2 X	1.3	113.8 Y	161.7 Y	2.7	0.6
Dibenzo(a,h)anthracene	mg/kg	8	0.6 UX	0.3 U	0.6 X	0.5 UX	0.4	2.1 UY	**23.7 Y**	0.5	0.3 U
Fluoranthene	mg/kg	130,000	3 X	1.6	8.9 X	2.1 X	2.3	307.1 Y	421.2 Y	6.4	1.1
Fluorene	mg/kg	87,000	0.6 UX	0.3 U	0.5 UX	0.5 UX	0.3 U	3.8 Y	4.6 Y	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	0.7 X	0.6	2.2 X	0.5 X	0.9	48.4 Y	75.5 Y	1.2	0.4
Naphthalene	mg/kg	52,000	0.6 UX	0.3 U	0.5 UX	0.5 UX	0.3 U	16.6 Y	4.9 Y	0.3 U	0.3 U
Phenanthrene	mg/kg	5,200	1.4 X	0.8	3.7 X	0.9 X	0.9	173.4 Y	80.9 Y	3.4	0.4
Pyrene	mg/kg	84,000	2.6 X	1.4	7.6 X	1.8 X	2.1	207.9 Y	328.1 Y	6	0.9
Detected Miscellaneous											
Total Solids	mg/kg	- -	900,000	920,000	950,000	950,000	910,000	930,000	920,000	880,000	910,000

Notes:
NDC - Nonresidential Direct Contact Criteria
Shaded and bolded results exceed NDC criteria.
mg/kg - milligram peg kilogram
p - benzo(b)fluoranthene and benzo(k)fluoranthene integrated as one peak.
X - Elevated reporting limit due to matrix interference

Table 12 **Off Site Soil Excavation – Benzo(a)pyrene Confirmation Samples**
2013 CMI Report
RACER Trust, Buick City Site, Flint, Michigan

Location ID: Date Collected:	Units	NDC	AOI-09A-ABSW-12 09/11/13	AOI-09A-ABSW-13 09/11/13	AOI-09A-ABSW-14 09/12/13	AOI-09A-ABSW-15 09/18/13	AOI-09A-ABSW-16 09/18/13	AOI-09A-ABSW-17 09/18/13
Detected SVOC								
1-Methylnaphthalene	mg/kg	- -	0.3 U	0.3 U	0.7 UX	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	mg/kg	26,000	0.3 U	0.3 U	0.7 UX	0.3 U	0.3 U	0.3 U
Acenaphthylene	mg/kg	5,200	0.3 U	0.5	0.7 UX	0.3 U	1	0.3 U
Anthracene	mg/kg	730,000	0.3 U	0.6	4 X	0.3 U	1.8	0.3 U
Benzo(a)anthracene	mg/kg	80	0.3	3.7	34.7 X	0.3 U	6.3	0.3 U
Benzo(a)pyrene	mg/kg	8	0.6	4.4	**49.8 X**	0.3 U	6.6	0.3 U
Benzo(b)fluoranthene	mg/kg	80	1.1 p	6.6 p	**84.1 pX**	0.3 U	11 p	0.4 p
Benzo(g,h,i)perylene	mg/kg	7,000	0.6	2.4	34.8 X	0.3 U	4.1	0.3 U
Benzo(k)fluoranthene	mg/kg	800	1.2 p	7.4 p	93.7 pX	0.3 U	12.3 p	0.4 p
Chrysene	mg/kg	8,000	0.4	3.5	34.6 X	0.3 U	6.1	0.3 U
Dibenzo(a,h)anthracene	mg/kg	8	0.3 U	0.3 U	**11.1 X**	0.3 U	0.3 U	0.3 U
Fluoranthene	mg/kg	130,000	0.4	7	51.4 X	0.3 U	11.9	0.3
Fluorene	mg/kg	87,000	0.3 U	0.3 U	0.7 UX	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	0.5	2.3	33.8 X	0.3 U	4	0.3 U
Naphthalene	mg/kg	52,000	0.3 U	0.3 U	0.7 UX	0.3 U	0.3 U	0.3 U
Phenanthrene	mg/kg	5,200	0.3 U	1.9	16.9 X	0.3 U	3.2	0.3 U
Pyrene	mg/kg	84,000	0.5	6.9	39 X	0.3 U	9.4	0.3 U
Detected Miscellaneous								
Total Solids	mg/kg	- -	880,000	890,000	950,000	930,000	940,000	950,000

Notes:
NDC - Nonresidential Direct Contact Criteria
Shaded and bolded results exceed NDC criteria.
mg/kg - milligram peg kilogram
p - benzo(b)fluoranthene and benzo(k)fluoranthene integrated as one peak.
X - Elevated reporting limit due to matrix interference

Table 13 **Off Site Soil Excavation – Lead Confirmation Samples, 2013 CMI Report**
RACER Trust, Buick City Site, Flint, Michigan

Location ID: / Date Collected:	Units	NDC	AOI-09A-AFL-01 09/05/13	AOI-09A-AFL-02 09/05/13	AOI-09A-AFL-03 09/05/13	AOI-09A-AFL-04 09/05/13	AOI-09A-AFL-05 09/05/13	AOI-09A-AFL-06 09/05/13	AOI-09A-AFL-07 09/05/13	AOI-09A-AFL-08 09/05/13	AOI-09A-AFL-09 09/05/13	AOI-09A-AFL-10 09/05/13
Inorganic												
Lead	mg/kg	900	8.29	27.4	83.9	**992**	58.9	737	28.4	11.7	11.6	4.94
Miscellaneous												
Total Solids	mg/kg	- -	890,000	910,000	880,000	870,000	860,000	870,000	860,000	860,000	880,000	880,000

Location ID: / Date Collected:	Units	NDC	AOI-09A-AFL-11 09/10/13	AOI-09A-AFL-12 09/10/13	AOI-09A-AFL-12 09/12/13	AOI-09A-AFL-13 09/18/13	AOI-09A-AFL-14 09/20/13	AOI-09A-ASW-1 09/05/13	AOI-09A-ASW-2 09/05/13	AOI-09A-ASW-3 09/05/13	AOI-09A-ASW-4 09/05/13	AOI-09A-ASW-5 09/05/13
Inorganic												
Lead	mg/kg	900	50.3	7.32	303	8.67	25.7	178	622	709	611	718
Miscellaneous												
Total Solids	mg/kg	- -	890,000	850,000	900,000	860,000	850,000	660,000	910,000	910,000	890,000	820,000

Location ID: / Date Collected:	Units	NDC	AOI-09A-ASW-6 09/05/13	AOI-09A-ASW-7 09/05/13	AOI-09A-ASW-8 09/05/13	AOI-09A-ASW-9 09/05/13	AOI-09A-ASW-10 09/05/13	AOI-09A-ASW-11 09/05/13	AOI-09A-ASW-12 09/05/13	AOI-09A-ASW-13 09/10/13	AOI-09A-ASW-14 09/10/13	AOI-09A-ASW-15 09/12/13
Inorganic												
Lead	mg/kg	900	552	225	243	205	132	268	**16,500**	51.8	**15,300**	**241**
Miscellaneous												
Total Solids	mg/kg	- -	820,000	850,000	790,000	870,000	870,000	900,000	910,000	930,000	840,000	970,000

Location ID: / Date Collected:	Units	NDC	AOI-09A-ASW-16 09/12/13	AOI-09A-ASW-17 09/12/13	AOI-09A-ASW-18 09/12/13	AOI-09A-ASW-19 09/12/13	AOI-09A-ASW-20 09/18/13	AOI-09A-ASW-21 09/18/13	AOI-09A-ASW-22 09/20/13	AOI-09A-ASW-23 09/20/13
Inorganic										
Lead	mg/kg	900	10.5	75.7	11.8	2.25	**1,010**	102	144	115
Miscellaneous										
Total Solids	mg/kg	- -	900,000	850,000	910,000	930,000	840,000	890,000	830,000	890,000

Notes:
mg/kg - milligrams per kilogram
NDC - Non-residential direct contact criteria
Bold and shaded results exceed NDC criteria

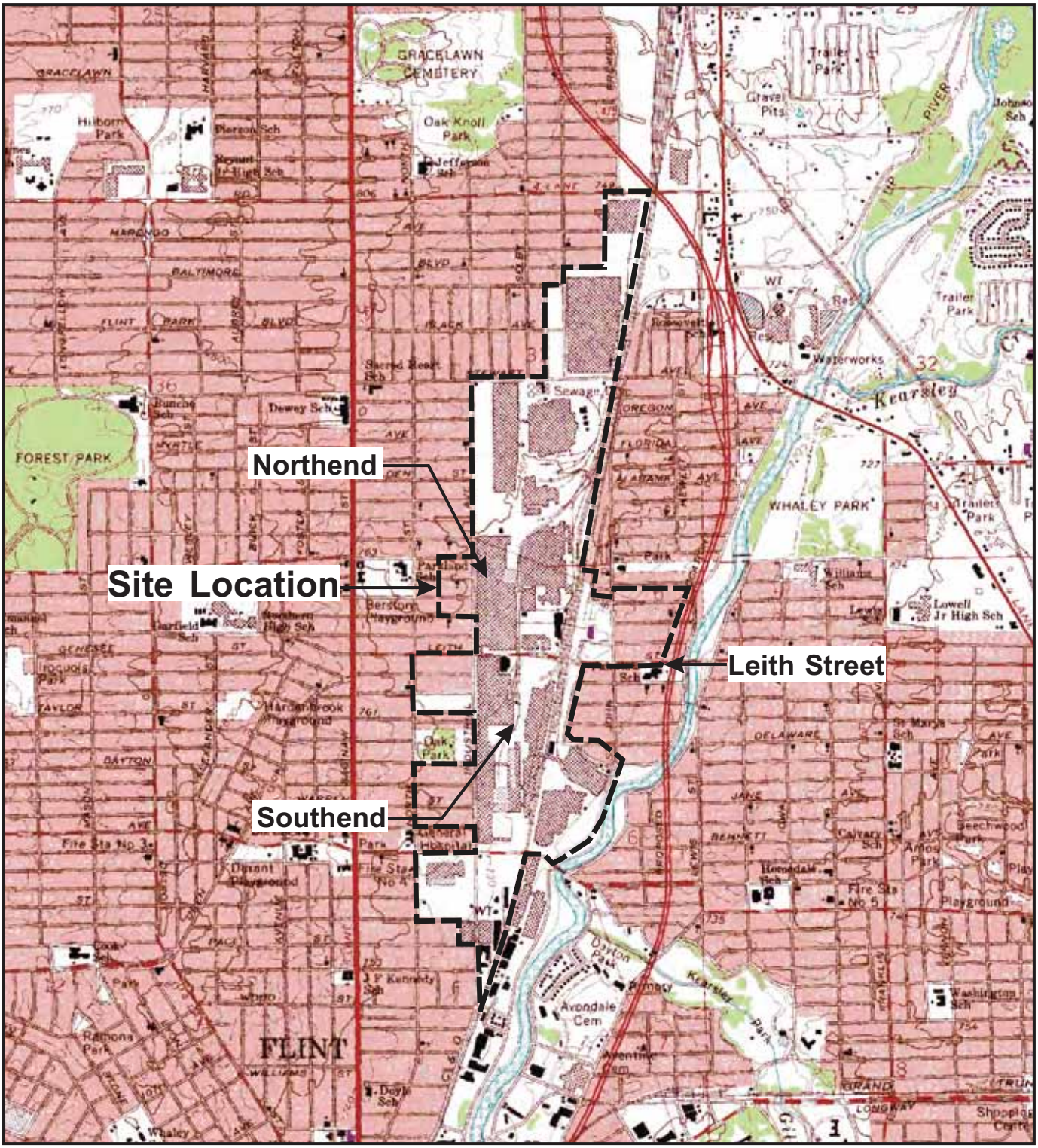
Table 14 002 Passive Recovery Trench Monitoring Summary, 2013 CMI Report
RACER Trust, Buick City Site, Flint, Michigan

Month	2-18 Location Results/Notes	Accumulated LNAPL Total for 2-18 (Gal.)	2-21 Location Results/Notes	Accumulated LNAPL Total for 2-21(Gal.)	Total Est. LNAPL Accumulated in Booms (Gal.)
Jun-13	6/26 Boom installed. 0.75' LNAPL Thickness	0	6/11 Boom installed. No measurable LNAPL.	0	**0**
Jul-13	Obtained 75% saturation. LNAPL thickness was ~0.1'.	4.5	Obtained 75% saturation. No measurable LNAPL.	4.5	**9**
Aug-13	Boom reached 100% saturation and was changed at beginning of month. Accumulated 20% saturation. No measurable LNAPL.	1.9	Reached 85% saturation and was changed. Then accumulated 10% on the new boom. No measurable LNAPL.	0.8	**2.7**
Sep-13	Saturation of boom increased to 70%. No measurable LNAPL.	1	Saturation of boom increased to 50%. No measurable LNAPL.	0.8	**1.8**
Oct-13	Saturation of boom increased to 80%. No measurable LNAPL.	0.2	Saturation remained at 50%. No measurable LNAPL.	0	**0.2**
Nov-13	Boom reached 100% saturation and was changed. An additional 10% saturation was collected. No measurable LNAPL.	0.6	Saturation remained at 50%. No measurable LNAPL.	0	**0.6**
Dec-13	Saturation of boom increased to 50%. No Measurable LNAPL.	0.8	Saturation increased to 75%. No Measurable LNAPL.	0.5	**1.3**
Jan-14	Saturation of boom increased to 75% and was replaced. An additional 10% was collected. No measurable LNAPL.	0.7	Saturation increased to 100% and was changed twice in January. 1.5' of LNAPL was measured twice (2 days apart) then quickly went down to 0.1' thickness.	2.5	**3.2**
Feb-14	Saturation of boom increased to 20%. No measurable LNAPL.	0.2	Boom which was installed on 1/20 reached 20% saturation. 0.03' LNAPL measured.	0.4	**0.6**
	EST. TOTAL	**9.9**		**9.5**	**19.4**

Notes:
LNAPL = Light non-aqueous phase liquid
Gal = gallons
% = percent
' = feet

ARCADIS

Figures



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

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

SITE LOCATION MAP

ARCADIS

FIGURE
1

03/12/2012 SYRACUSE, NY-ENV/CAD-141-DJHOWES
B0064410/2012/01202/CDR/64410N01.CDR



LEGEND:

- RACER PROPERTY BOUNDARY
- MONITORING WELL
- ABANDONED MONITORING WELL
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- APPROXIMATE HISTORICAL EXTENT OF MEASURABLE LNAPL (>0.5 FEET)
- APPROXIMATE CURRENT EXTENT OF MEASURABLE LNAPL (>0.1 FEET)

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

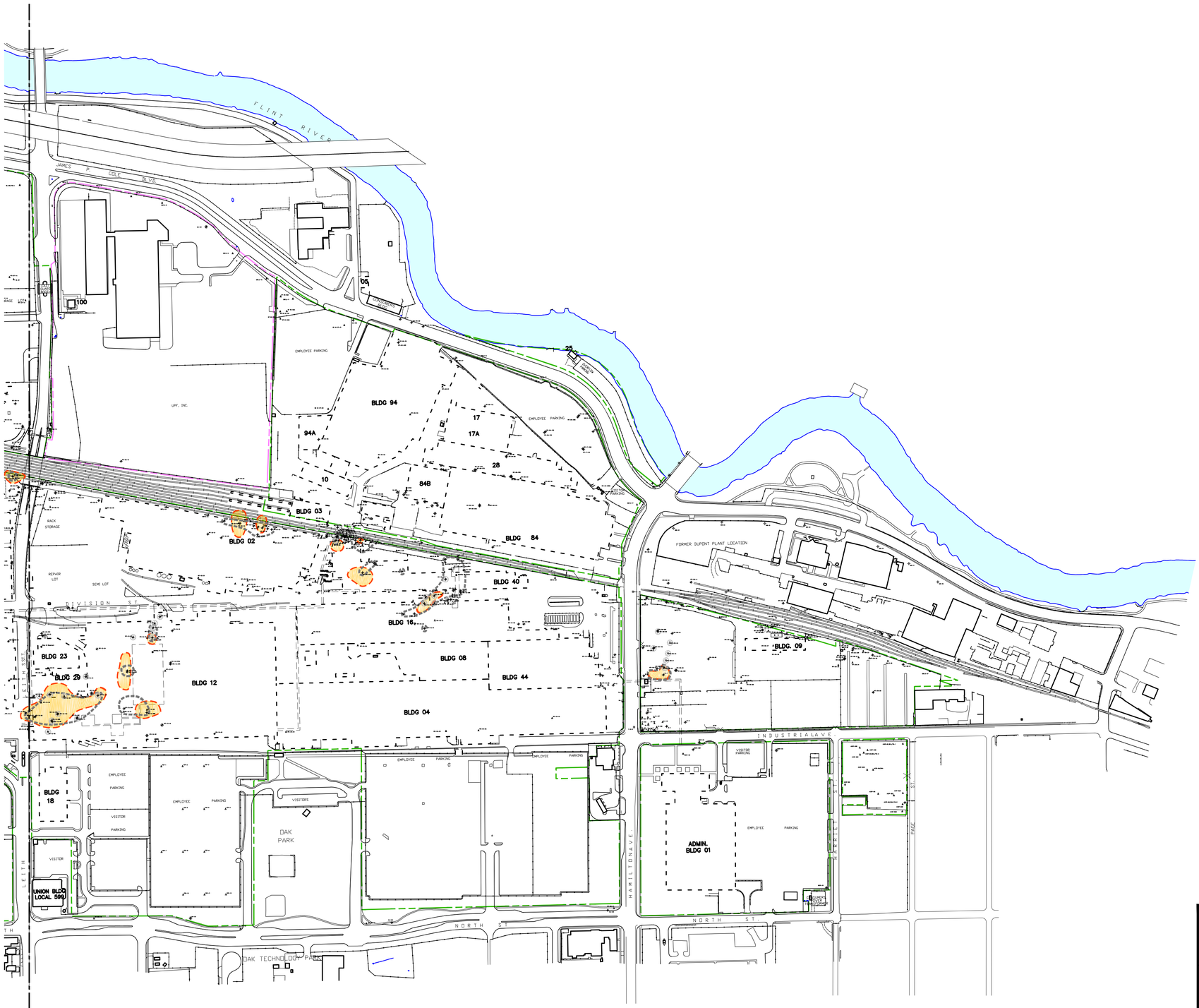
NORTHEND - HISTORICAL AND CURRENT LNAPL EXTENTS

ARCADIS

FIGURE
2A

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\00644101\20144101202\B64410 CMI.dwg LAYOUT: 2A SAVED: 8/6/2014 1:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/6/2014 1:01 PM BY: SANCHE, ADRIAN
IMAGES: PROJECTNAME: ----

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0064410\2014\01202\B64410 CMI.dwg LAYOUT: 2B SAVED: 8/6/2014 1:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/6/2014 1:02 PM BY: SANCHE... ADRIAN
IMAGES: PROJECTNAME: ----



LEGEND:

- RACER PROPERTY BOUNDARY
- MONITORING WELL
- ABANDONED MONITORING WELL
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- APPROXIMATE HISTORICAL EXTENT OF MEASURABLE LNAPL (>0.5 FEET)
- APPROXIMATE CURRENT EXTENT OF MEASURABLE LNAPL (>0.1 FEET)

0 250 500
APPROXIMATE SCALE IN FEET

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

SOUTHEND - HISTORICAL AND CURRENT LNAPL EXTENTS

ARCADIS

FIGURE
2B



LEGEND:

- RACER PROPERTY BOUNDARY
- MONITORING WELL
- ABANDONED MONITORING WELL
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- APPROXIMATE HISTORICAL EXTENT OF MEASURABLE LNAPL (>0.5 FEET)
- APPROXIMATE CURRENT EXTENT OF MEASURABLE LNAPL (>0.1 FEET)
- NSZD LOCATION

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

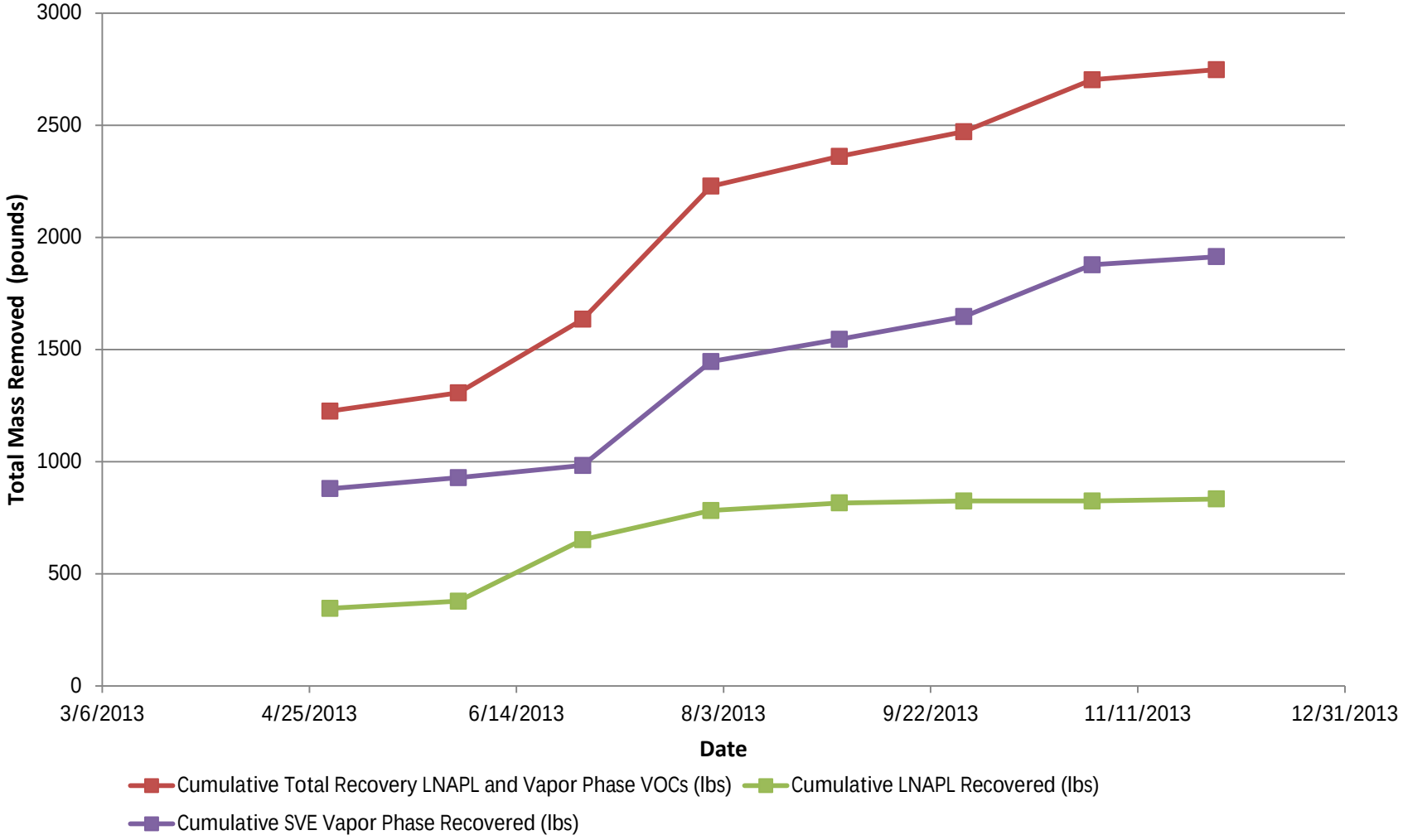
2013 NORTHEND NSZD RATE MEASUREMENT LOCATIONS

ARCADIS

FIGURE
3

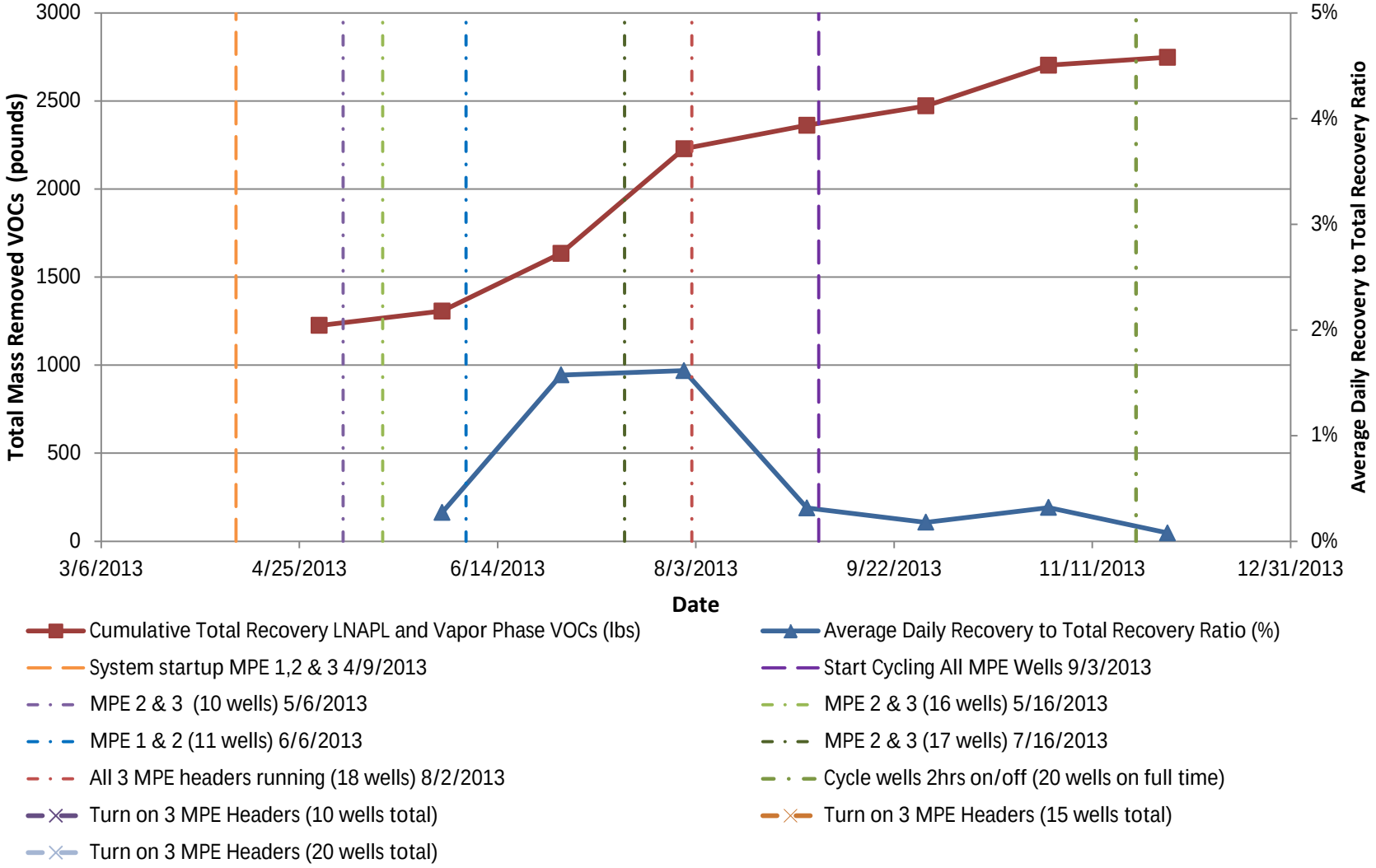
CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0064410\2014\01202\B64410 CMI.dwg LAYOUT: 3 SAVED: 8/6/2014 1:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/6/2014 1:02 PM BY: SANCHE, ADRIAN
IMAGES: PROJECTNAME: ----

Figure 4
AOI-09B MPE System - Cumulative LNAPL and Vapor Removed
RACER Buick City
Flint, Michigan

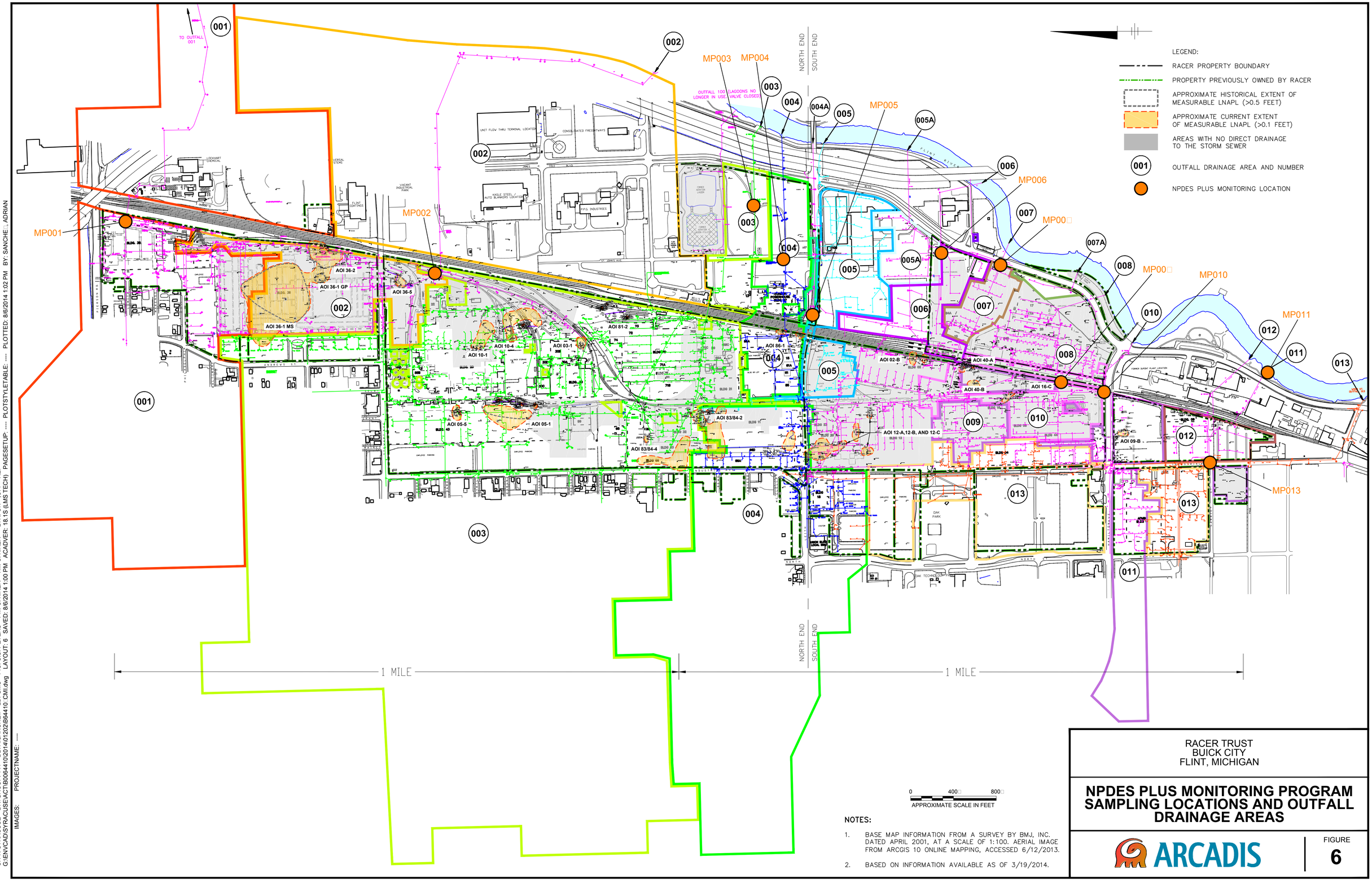


Note: Vapor phase mass removal is determined by applying the instantaneous mass removal rate, based on SVE flow rate and weekly and/or monthly air sample concentrations, to the corresponding operating time

Figure 5
AOI-09B MPE System - Total Mass Removed and Recovery Ratio
RACER Buick City
Flint, Michigan



Note: Vapor phase mass removal is determined by applying the instantaneous mass removal rate, based on SVE flow rate and weekly and/or monthly air sample concentrations, to the corresponding operating time



NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

NPDES PLUS MONITORING PROGRAM SAMPLING LOCATIONS AND OUTFALL DRAINAGE AREAS

ARCADIS

FIGURE 6

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\06441\0\2014\01202\B64410.CMI.dwg LAYOUT: 6 SAVED: 8/6/2014 1:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/6/2014 1:02 PM BY: SANCHE, ADRIAN
IMAGES: PROJECTNAME: ----


TO OUTFALL 001
OUTFALL 100 (LAGOONS NO LONGER IN USE, VALVE CLOSED)
NORTH END
SOUTH END
UNIT FLOW THRU TERMINAL LOCATION
CONSOLIDATED FREIGHTYARD
FLINT RIVER
LOCKHART CHEMICAL
UNIVERSAL SYSTEMS
VACANT INDUSTRIAL BUILDING
FLINT COATINGS
NEXIUM STEEL AUTO BUMPER LOCATION
FPG INDUSTRIES
GREEN ACRES GOLF COURSE
OAK PARK
OAK TECHNOLOGY PARK
LOCAL 599
ACSP-B2AR
13.4
BD01-01
21.22
BD01-02R
26.55
BD01-04
23.53
RFI-36-48
RFI-36-55R
RFI-36-56
RFI-36-4
RFI-36-44
RFI-36-1
RFI-36-3
RFI-36-46
RFI-36-03
RFI-36-35
RFI-36-04
RFI-36-06
RFI-36-05
RFI-36-08
RFI-36-14
RFI-36-43
RFI-36-2 R
RFI-36-13
RFI-36-12
RFI-36-01
RFI-36-07
RFI-10-2
RFI-10-35
RFI-10-32
RFI-10-24
RFI-10-33
RFI-10-31
RFI-10-0
RFI-10-03
RFI-10-23
RFI-10-11
RFI-55-01
RFI-55-02
RFI-55-0
RFI-55-03
RFI-03-03
RFI-03-04
RFI-05-1 S
RFI-05-14
RFI-05-0
RFI-05-08
RFI-81-50
RFI-81-4
RFI-81-43
RFI-81-13
RFI-81-2
RFI-81-1
RFI-81-02
RFI-81-35
RFI-81-08
RFI-81-33
RFI-81-12R
RFI-81-11
RFI-81-0
RFI-81-51
RFI-83/84-01
RFI-83/84-2
RFI-83/84-4
RFI-83/84-06
RFI-83/84-0
RFI-83/84-541
RFI-83/84-53
RFI-83/84-04
RFI-12-25
RFI-12-24
RFI-12-2
RFI-12-15
RFI-12-02/02R
RFI-12-0 R2
RFI-12-22R
RFI-12-08R
RFI-12-01R
RFI-12-14R
RFI-12-341
RFI-12-33
RFI-12-23
RFI-12-38
RFI-12-41
RFI-12-40
RFI-12-0 R
RFI-12-11S
RFI-12-11D
RFI-86-16R
RFI-86-15
RFI-86-06S
RFI-86-01R
RFI-86-08R
RFI-86-03
RFI-85-06R
RFI-85-05
RFI-85-04R
RFI-02-08R
RFI-02-1
RFI-02-18
RFI-02-22R
RFI-02-23
RFI-02-14
RFI-02-15
RFI-02-05R
RFI-40-01R2
RFI-40-0
RFI-40-0 R2
RFI-40-26R
RFI-40-03
RFI-40-2
RFI-40-10R
RFI-40-20
RFI-16-04R
RFI-16-01
RFI-84-0 D
RFI-84-0 S
RFI-84-10S
RFI-84-10D
RFI-84-11S
RFI-84-06RD
RFI-84-06R
RFI-84-08S
RFI-84-03S
RFI-84-06R2D
RFI-84-041
RFI-84-04D
RFI-84-04
RFI-40-305
RFI-40-304
RFI-0 -08
RFI-0 -01R2
RFI-0 -46
RFI-0 -48
RFI-0 -4 R
RFI-0 -04R
RFI-0 -36R
RFI-0 -53
RFI-0 -52
RFI-0 -40R
RFI-0 -45R
RFI-0 -5
RFI-0 -56
RFI-4-11
RFI-4-026
RFI-4-08
RFI-4-05
RFI-4-100
RFI-44-05
RFI-44-08
RFI-44-0
RFI-31-4S
RFI-31-40
RFI-31-3
RFI-31-2
RFI-31-1
RFI-31-5
RFI-31-6
RFI-31-
RFI-20-500R
RFI-20-105R
RFI-20-502
RFI-20-503
RFI-20-102
RFI-20-FP
RFI-20-FP8
RFI-20-FP12
RFI-20-168
RFI-20-144
RFI-20-142
RFI-43-16
RFI-43-166
RFI-43-165
RFI-43-103
RFI-88-6
RFI-88-2
RFI-88-1
RFI-88-3
RFI-88-4
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RFI-88-39
RFI-88-40
RFI-88-41
RFI-88-42
RFI-88-43
RFI-88-44
RFI-88-45
RFI-88-46

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IMAGES: PROJECTNAME: ----

FACTORY 36 AREA

FACTORY 10 AREA

FACTORY 81 AND 85/86 AREA

RFI-36-55R

RFI-36-44
Analyte
Vinyl Chloride

36-FP1
Analyte
1,1,1-Trichloroethane
Arsenic

RFI-36-08
Analyte
Benzene
Ethylbenzene
m&p-Xylene
o-Xylene

RFI-36-47

RFI-36-37

RFI-36-46

RFI-36-03

RFI-36-35

20-500R

AOI 36-2

AOI 36-1 GP

AOI 36-1 MS

002

001

20-105R
Analyte
1,1,1-Trichloroethane

RFI-10-03
Analyte
1,1,1-Trichloroethane
Vinyl Chloride
Cyanide (total)

RFI-10-32

RFI-10-33

RFI-10-26

RFI-10-11

70-164R

70-163

AOI 36-5

20-102

RFI-10-37

AOI 81-2

AOI 10-4

AOI 03-1

AOI 10-1

003

004

RFI-81-33

RFI-81-12R

07-01

RFI-86-06S

RFI-81-51

RFI-81-11

86-100

AOI 86-1

87- FP5

RFI-86-08R
Analyte
Naphthalene
Arsenic

87-FP3
Analyte
Vinyl Chloride

AOI 05-5

AOI 05-1

AOI 83/84-2

AOI 83/84-4

LEGEND:

- PROPERTY BOUNDARY
- APPROXIMATE HISTORICAL EXTENT OF MEASURABLE LNAPL (>0.5 FEET)
- APPROXIMATE CURRENT EXTENT OF MEASURABLE LNAPL (>0.1 FEET)
- AREAS WHERE STORM SEWER HAS BEEN BULKHEADED
- 001 OUTFALL DRAINAGE AREA AND NUMBER
- GROUNDWATER MONITORING IMPACT AREA
- RFI-36-46 MONITORING WELL SAMPLED FOR ANNUAL GROUNDWATER MONITORING PROGRAM WHERE NO ANALYTES EXCEEDED CRITERIA
- LOCATION WHERE LNAPL WAS MEASURED AT A THICKNESS OF >0.1 FEET DURING THE 2013 SAMPLING EVENT

WELL ID

ANALYTE WHICH EXCEED GROUNDWATER/SURFACE WATER INTERFACE CRITERIA

87-FP3
Analyte
Vinyl Chloride

RFI-36-08
Analyte
Benzene
Ethylbenzene
m&p-Xylene
o-Xylene

DATABOXES SHOWN IN GRAY INDICATE MONITORING WELLS LOCATED IN AREAS WHERE THE STORM SEWER HAS BEEN BULKHEADED. THEREFORE, GROUNDWATER/SURFACE WATER INTERFACE CRITERIA ARE NOT APPLICABLE TO THESE AREAS.

0 250 500
APPROXIMATE SCALE IN FEET

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

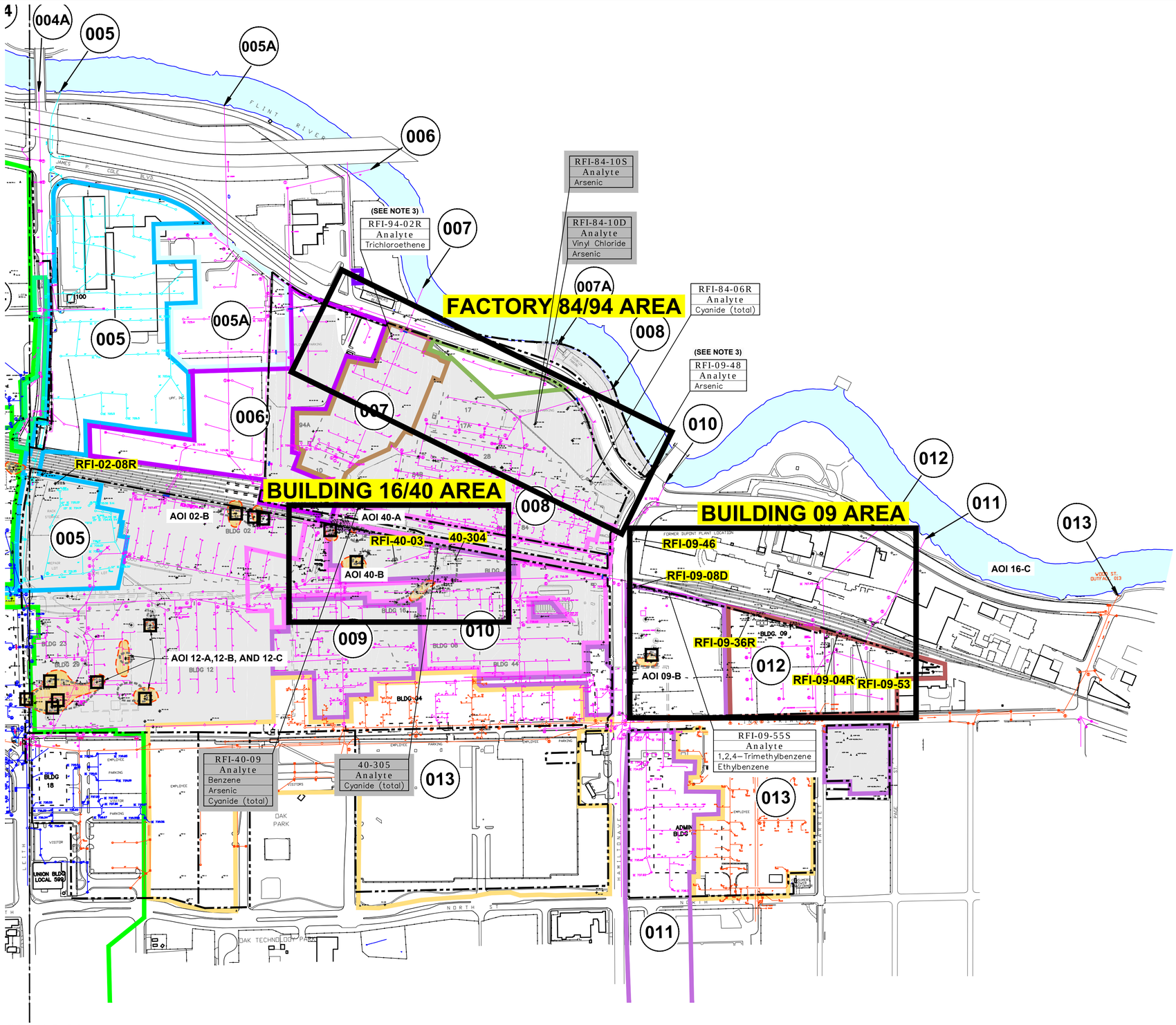
NORTH END SOUTH END

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

GROUNDWATER SAMPLES EXCEEDING GROUNDWATER/SURFACE WATER INTERFACE CRITERIA - NORTHEND

ARCADIS

FIGURE 8



LEGEND:

- PROPERTY BOUNDARY
- APPROXIMATE HISTORICAL EXTENT OF MEASURABLE LNAPL (>0.5 FEET)
- APPROXIMATE CURRENT EXTENT OF MEASURABLE LNAPL (>0.1 FEET)
- AREAS WHERE STORM SEWER HAS BEEN BULKHEADED
- 001 — OUTFALL DRAINAGE AREA AND NUMBER
- GROUNDWATER MONITORING IMPACT AREA
- RFI-09-53 — MONITORING WELL SAMPLED FOR ANNUAL GROUNDWATER MONITORING PROGRAM WHERE NO ANALYTES EXCEEDED CRITERIA
- LOCATION WHERE LNAPL WAS MEASURED AT A THICKNESS OF >0.1 FEET DURING THE 2013 SAMPLING EVENT

WELL ID → RFI-09-55S

ANALYTE WHICH EXCEED GROUNDWATER/SURFACE WATER INTERFACE CRITERIA → Analyte: 1,2,4-Trimethylbenzene; Ethylbenzene

RFI-09-48
Analyte
Arsenic

DATABOXES SHOWN IN GRAY INDICATE MONITORING WELLS LOCATED IN AREAS WHERE THE STORM SEWER HAS BEEN BULKHEADED. THEREFORE, GROUNDWATER/SURFACE WATER INTERFACE CRITERIA ARE NOT APPLICABLE TO THESE AREAS.

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.
3. WHILE MONITORING WELLS RFI-94-02R AND RFI-09-48 ARE LOCATED WITHIN AN AREA WHERE THE STORM SEWER HAS BEEN BULKHEADED, THUS ELIMINATING THE GSI PATHWAY THROUGH THE SEWER SYSTEM, IT IS LOCATED WITHIN CLOSE PROXIMITY TO THE FLINT RIVER. THEREFORE, THERE IS A POTENTIAL GSI PATHWAY THROUGH DIRECT DISCHARGE.

0 250 500
APPROXIMATE SCALE IN FEET

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

GROUNDWATER SAMPLES EXCEEDING GROUNDWATER/SURFACE WATER INTERFACE CRITERIA - SOUTHEND

ARCADIS

FIGURE 9

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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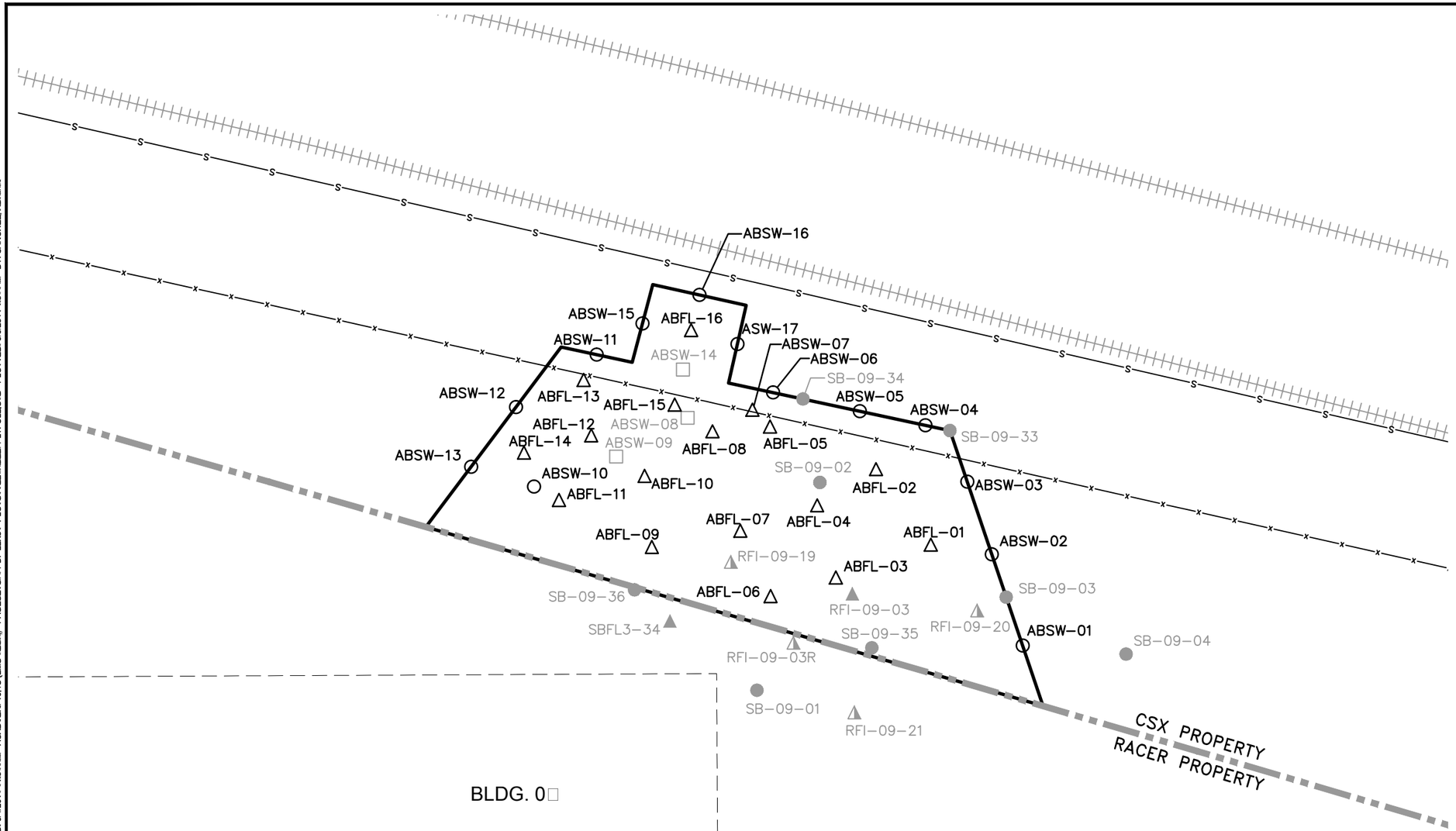

LEGEND:

- RACER/CSX PROPERTY BOUNDARY
- STORM PIPING
- FORMER RAILROAD
- FENCE
- FORMER BUILDING
- EXTENT OF EXCAVATION
- SOIL BORING (8/16/10–8/20/10)
- HISTORICAL RFI SOIL BORING
- HISTORICAL SOIL BORING
- FLOOR SOIL SAMPLING LOCATION
- SIDEWALL SOIL SAMPLING LOCATION
- EXCEEDED CLEANUP CRITERIA FOR ONE OR MORE CONSTITUENTS. STEPOUT EXCAVATION PERFORMED.

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.
3. EXCAVATION WAS COMPLETED TO A DEPTH OF 23.5 FEET BELOW GROUND SURFACE (BGS).
4. CONFIRMATION SAMPLE LOCATION NAMES HAVE BEEN ABBREVIATED FROM AOI-09A-ABSW-01 TO ABSW-01 DUE TO SPACE LIMITATIONS.

0 10' 20'

GRAPHIC SCALE

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

BENZO (A) PYRENE EXCAVATION LIMITS AND CONFIRMATION SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE
10

CITY: SYRACUSE DIV/GROUP: 1441 DB: GAUSA/NCHEM/SLDPBMS LOG: ICS: REFERS: FONTS: REFEDITS: V: SMB: BUILDING-NAME: OBS
G:\ENVCAD\SYRACUSE\WCT\BUICK\441002\2015844100_CMM100.dgn LAYOUT: 10 SAVED: 8/4/2014 11:04 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: PDF 22X34 PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/6/2014 1:04 PM BY: SANCHEZ, ADRIANI
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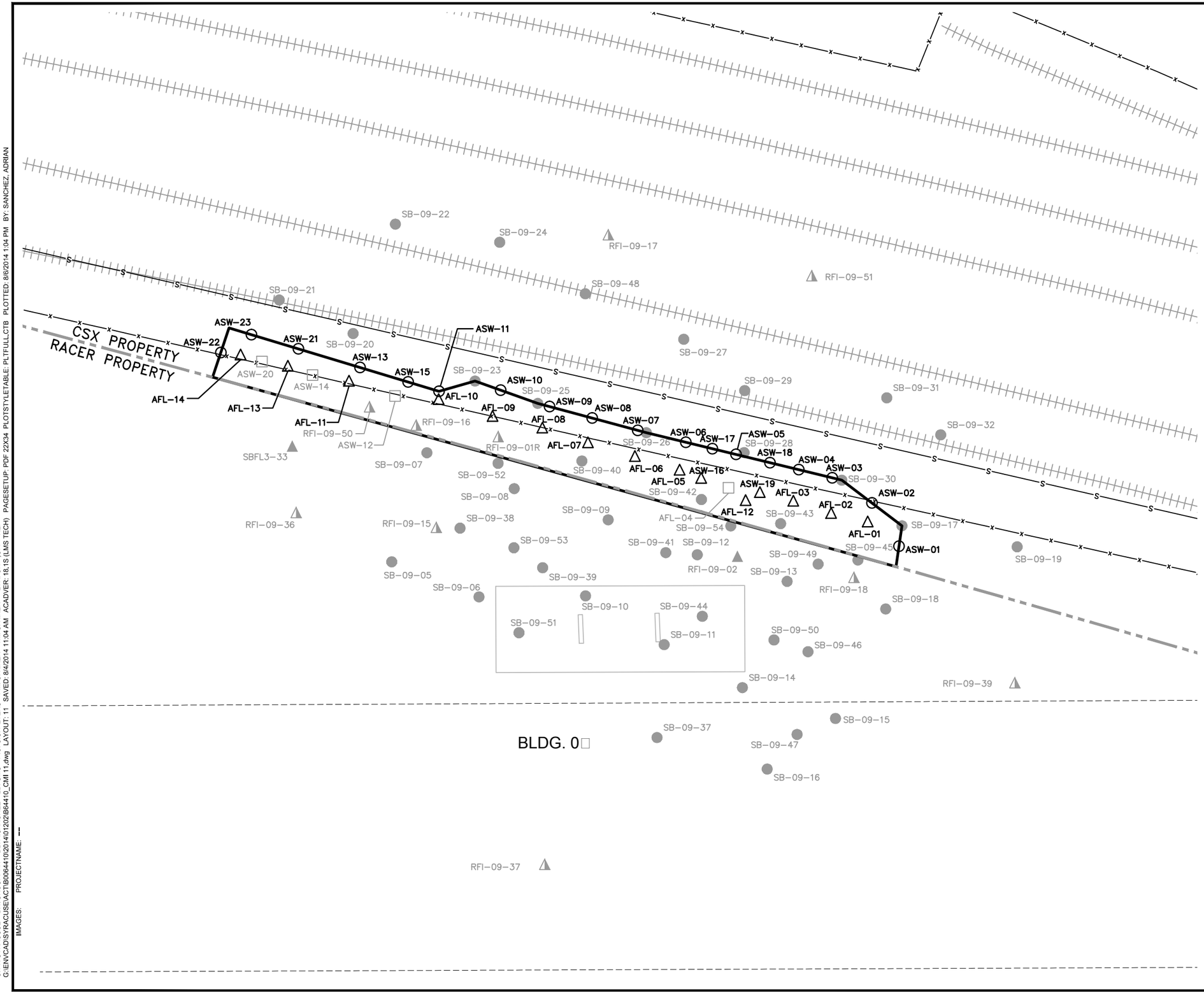

LEGEND:

- RACER/CSX PROPERTY BOUNDARY
- STORM PIPING
- FORMER RAILROAD
- FENCE
- FORMER BUILDING
- EXTENT OF EXCAVATION
- SOIL BORING (8/16/10–8/20/10)
- HISTORICAL RFI SOIL BORING
- HISTORICAL SOIL BORING
- FLOOR SOIL SAMPLING LOCATION
- SIDEWALL SOIL SAMPLING LOCATION
- EXCEEDED CLEANUP CRITERIA FOR ONE OR MORE CONSTITUENTS. STEPOUT EXCAVATION PERFORMED.

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.
3. EXCAVATION WAS COMPLETED TO A DEPTH OF 3.5 FEET BELOW GROUND SURFACE (BGS), EXCEPT IN THE AREA AROUND AFL–04, WHICH WAS COMPLETED TO A DEPTH OF 5.5 FEET BGS.
4. CONFIRMATION SAMPLE LOCATION NAMES HAVE BEEN ABBREVIATED FROM AOI–09A–ASW–01 TO ASW–01 DUE TO SPACE LIMITATIONS.

0 20' 40'

GRAPHIC SCALE

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

LEAD EXCAVATION LIMITS AND CONFIRMATION SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE 11

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHEZ LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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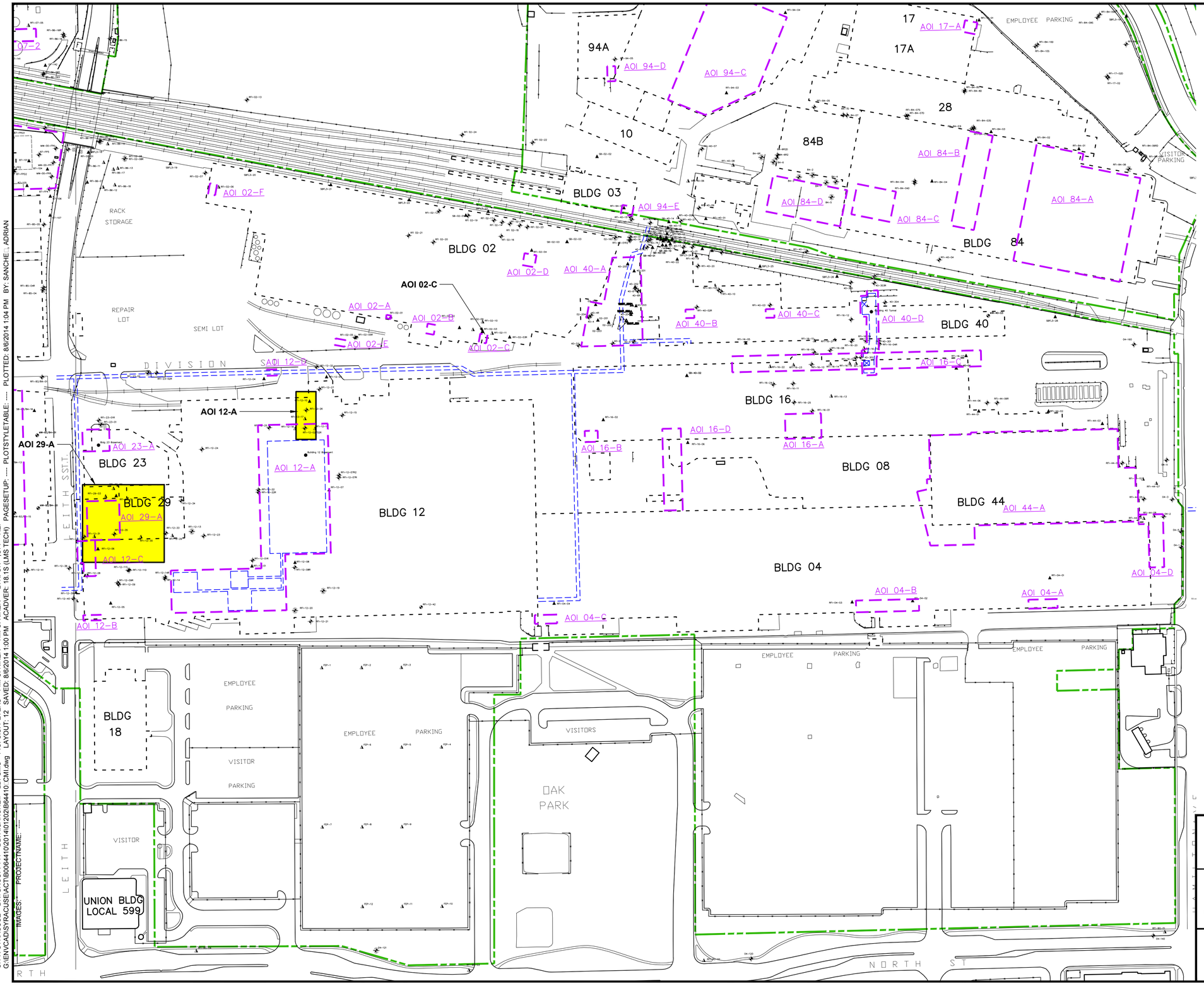

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

0 120 240
SCALE IN FEET

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

LOCATIONS OF AREAS REQUIRING SURFACE COVER (ARSC) - SOUTHEND OF THE SITE, NORTH OF HAMILTON AVE

ARCADIS

FIGURE
12

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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IMAGES: ---- PROJECTNAME: ----

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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IMAGES: PROJECTNAME:

VISITOR PARKING

FORMER DUPONT PLANT LOCATION

AOI 09-A

BLDG. 09

AOI 09-B [NORTH]

AOI 09-B

AOI 09-B [SOUTH]

AOI 04-D

INDUSTRIAL AVE.

VISITOR PARKING

LEGEND:

- RACER PROPERTY BOUNDARY
- MONITORING WELL
- ABANDONED MONITORING WELL
- RFI SOIL BORING/GRAB
- APPROXIMATE AOI BOUNDARY
- BASEMEN/TUNNEL AREA
- DEMOLISHED BUILDING
- LOCATION OF AREAS REQUIRING SURFACE COVER (ARSC)

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

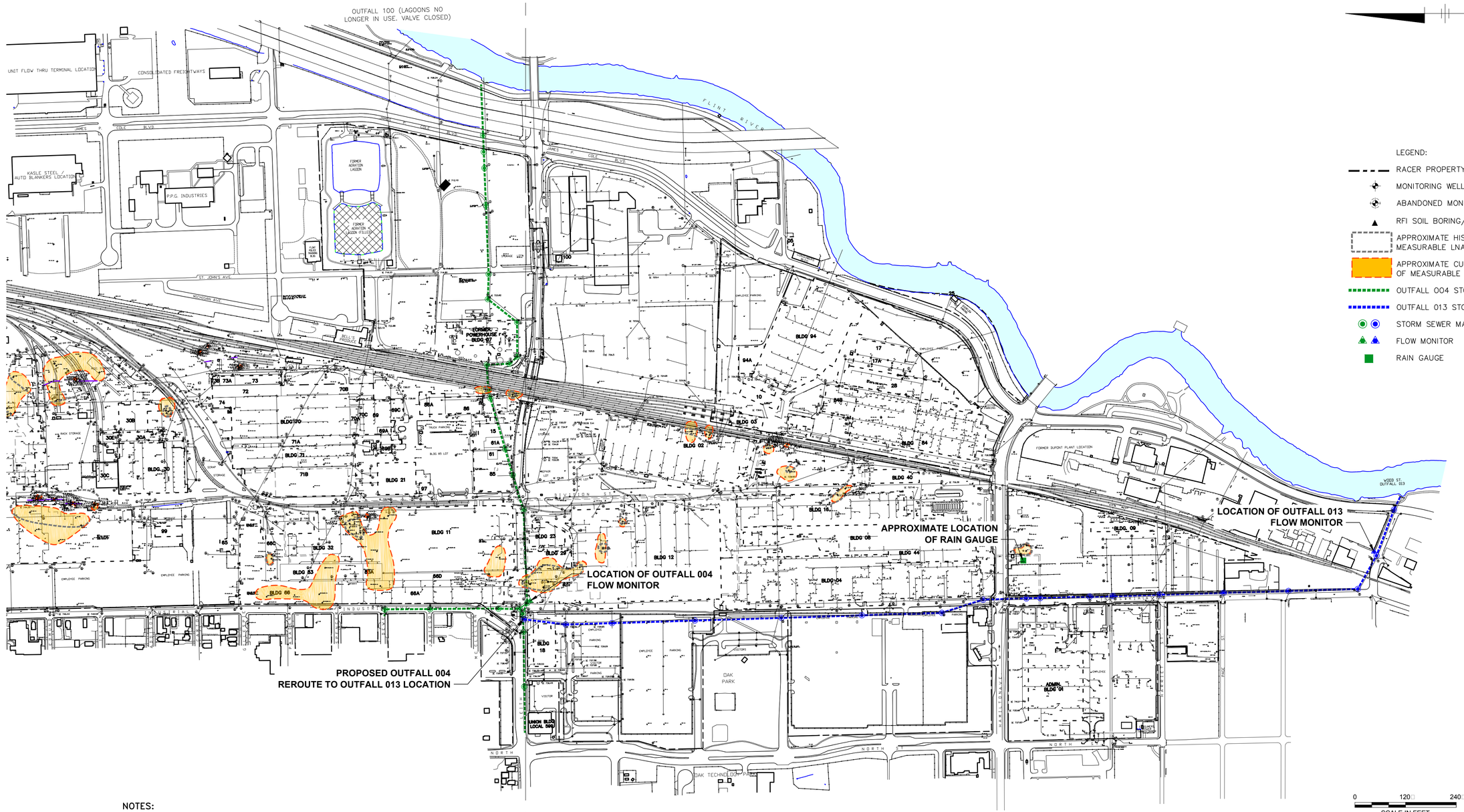
0 80 160
SCALE IN FEET

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

LOCATIONS OF AREAS REQUIRING SURFACE COVER (ARSC) - SOUTHEND OF THE SITE, SOUTH OF HAMILTON AVE

ARCADIS

FIGURE
13



NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.
3. DRAINAGE AREAS ILLUSTRATED BASED ON INFORMATION OBTAINED FROM CITY OF FLINT AND GM, TO THE EXTENT SUCH INFORMATION IS AVAILABLE.
4. OUTFALL 008 AND 100 NO LONGER IN SERVICE.
5. THE MONITORING POINT FOR OUTFALL 011 IS LOCATED IN HAMILTON AVE. A SAMPLE COULD NOT BE COLLECTED DUE TO TRAFFIC HAZARDS.
6. THE MONITORING POINT FOR OUTFALL 012 WAS FOUND TO BE DRY, THEREFORE A SAMPLE WAS NOT COLLECTED.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

OUTFALL 004 REROUTE FLOW MONITORING LOCATIONS

ARCADIS

FIGURE
14

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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IMAGES: PROJECTNAME: ----

MANHOLE 2-21
PROVIDE H2O SOLID COVER
1-42" BULKHEAD, AND
2-12" CONC. PLUGS

MANHOLE 2-20
PROVIDED 1-12"
AND 1-6" CONC. PLUG

MANHOLE 2-18
PROVIDED 1-54" BULKHEAD
AND 1-12" CONC. PLUG

MANHOLE 3-22
PROVIDED 1-24" CONC. PLUG,
1-18" CONC. PLUG, AND
2-6" CONC. PLUGS

MANHOLE 3-10
PROVIDED 1-42" BULKHEAD
AND 1-24" CONC. PLUG

MANHOLE 5-12-1
PROVIDE H2O SOLID COVER
1-36" BULKHEAD

OUTFALL 100 (LAGOONS NO LONGER IN USE. VALVE CLOSED)

NORTH END | SOUTH END

LEGEND:

- RACER PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- BASEMEN/TUNNEL AREA
- DEMOLISHED BUILDING

MANHOLE 3-48-1
PROVIDED H2O SOLID COVER

MANHOLE 3-48
PROVIDED 1-20" CONC. PLUG

MANHOLE 5-13
PROVIDE H2O SOLID COVER
1-36" BULKHEAD

0 250 500
APPROXIMATE SCALE IN FEET

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

BULKHEAD SITE PLAN - NORTHEND

ARCADIS

FIGURE
15

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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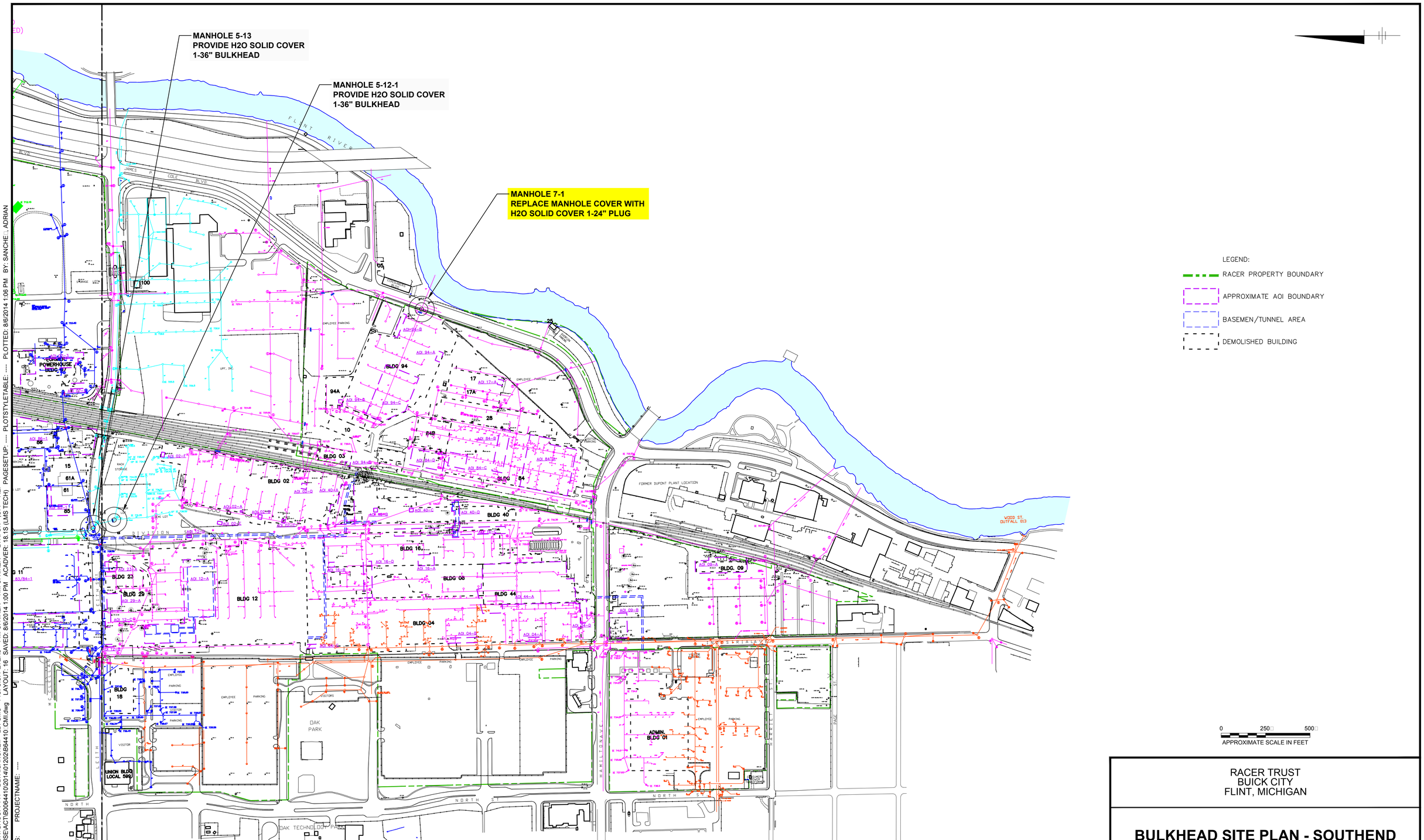

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

BULKHEAD SITE PLAN - SOUTHEND

ARCADIS

FIGURE
16

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
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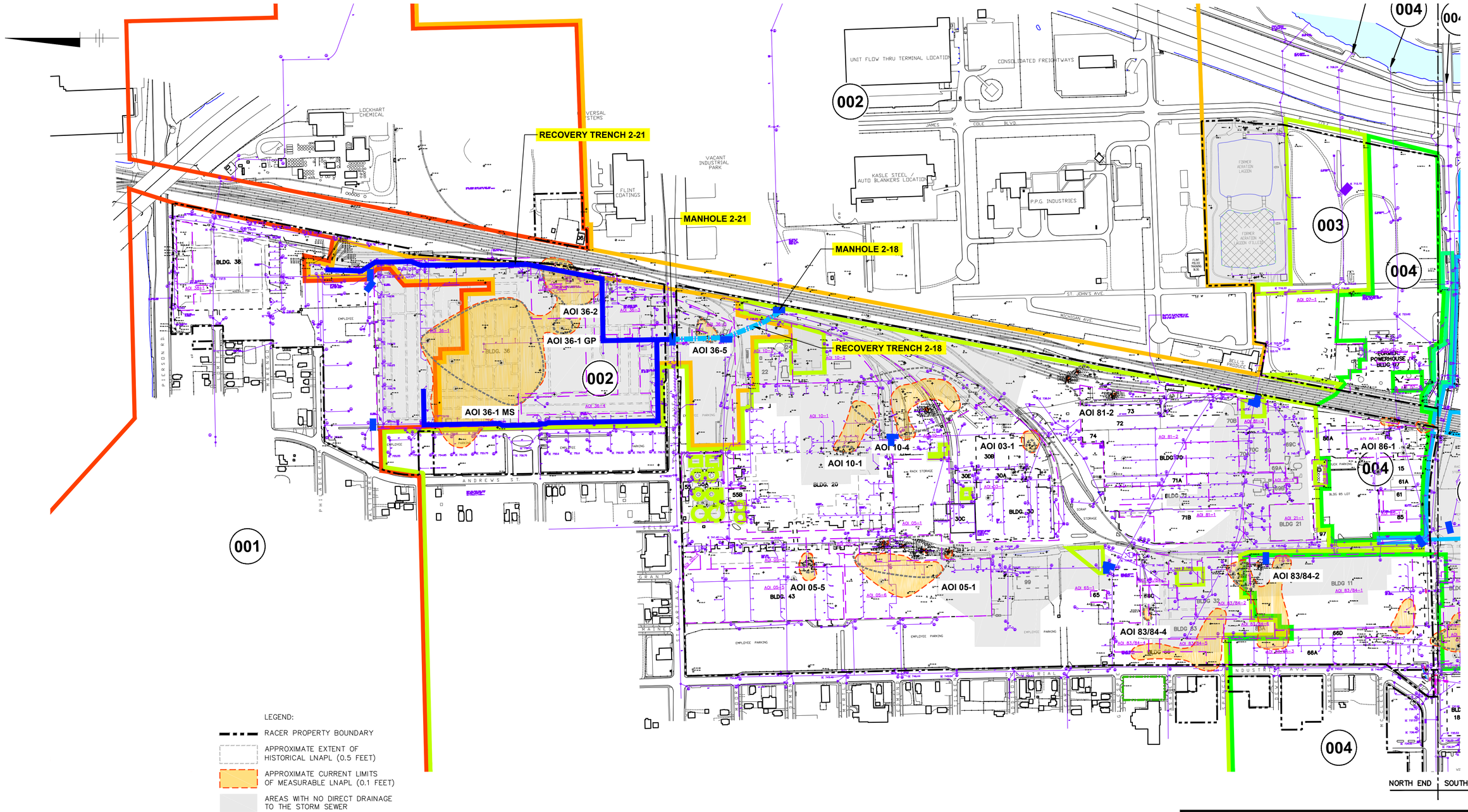

LEGEND:

- RACER PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF HISTORICAL LNAPL (0.5 FEET)
- APPROXIMATE CURRENT LIMITS OF MEASURABLE LNAPL (0.1 FEET)
- AREAS WITH NO DIRECT DRAINAGE TO THE STORM SEWER
- STORM SEWER
- STORM SEWER BULKHEAD LOCATION
- 001 OUTFALL DRAINAGE AREA AND NUMBER
- MANHOLE 2-18 PASSIVE RECOVERY TRENCH
- MANHOLE 2-21 PASSIVE RECOVERY TRENCH

0 250 500
APPROXIMATE SCALE IN FEET

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

002 PASSIVE RECOVERY TRENCH LOCATIONS

ARCADIS

FIGURE
17

CITY: SYRACUSE DIV/GROUP: 141 DB: A.SANCHE LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0064410\2014\01202\B64410_CMI.dwg LAYOUT: 1 SAVED: 8/6/2014 1:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/6/2014 1:06 PM BY: SANCHE, ADRIAN
IMAGES: PROJECTNAME: ----

Appendix A

Respirometry Report by Environmental Business Specialists

TPH Removal in Soil

Arcadis – Buick City

Introduction

Arcadis contacted Environmental Business Specialists (EBS) in order to perform a soil respirometry study that would study the performance of two soil bioaugmentation products, UltraTech UltraMicrobes (referred to as Archaea in the protocol) in combination with MiracleGro and Probiotic Scrubber II (referred to as Biolynceus in the protocol), in remediating hydrocarbons in soil. A protocol was developed by Arcadis that included the mass of soil to be used and dosing concentrations. Soil was shipped to EBS in narrow mouth amber glass bottles.

Methods

This study was conducted according to Test Plan provided by Arcadis dated October 2013 (see Appendix). Soil/compost reactor columns constructed by Challenge Technology were connected to a RSA PF-8000 Respirometer for collection of oxygen uptake data (Figure 1). The study was run at room temperature of approximately 22°C for 30 days.



Figure 1 - Example of oil/compost reactors used in study

Results and Discussion

The appearance of each soil sample was different from the next. An important point is that each sample had high clay content. This could severely limit aerobic respiration because of the inability of oxygen to diffuse into dense, wet clay. It was noted in the protocol that an attempt to remove larger particles from the soil samples was made at the time of sampling. Additionally, the clay formations make homogenizing the samples very difficult and likely led to the inconclusive results.

Initial and final physical-chemical data on the soil samples can be found below in Table 1. As there are only eight soil cells, the control for 5-15 feet below ground surface (ft. bgs) was not included in the study. From the significant differences in initial TPH, initial moisture, and total solids it appears that the 5-15 ft. bgs initial sample is very different from the other two samples. In comparing the 5-10 ft. bgs and 10-15 ft. bgs treated samples the Probiotic Scrubber II performed best (Figure 2). The contrary is found in the 5-15 ft. bgs samples where the UltraTech UltraMicrobes with nutrient added resulted in lower TPH concentrations. Nutrient addition could be a significant factor in the removal of hydrocarbons as is noted in the protocol but that was not seen in the data collected.

Environmental Business Specialists, LLC * 1930 Surgi Dr., Mandeville, LA 70448
Maxwell@ebsbiowizard.com * 985-674-0660 ext. 105

Respirometry results displayed in Figure 3 are inconclusive. The sample that should have had the highest respiration because of significant TPH removal, 5-15 ft. bgs UltraMicrobes, only had middle of the pack respiration. 5-10 ft. bgs control respirometry results show the highest oxygen uptake but TPH removal data is the exact opposite where we see obvious decrease in the concentration of TPH. Oxygen consumption was very irregular and nonexistent at times. The 5-10 ft. bgs reactor never measured any significant respiration despite having a tight seal to prevent air leakage. The air tight seals in each reactor were checked periodically to ensure that no leaks developed. From time to time, though, it seemed that a leak had developed in reactor but that does not make sense that a leak in plastic and PVC, the material that makes up the soil/compost reactors, would spontaneously develop. This apparent leakage could be due to the combination of aerobic and anaerobic bacteria respiring simultaneously and cancelling each other out or that anaerobic respiration was higher than aerobic at times. Because the respirometer relies on generation of CO_2 by aerobic bacteria coupled with the sequestration of that CO_2 by the NaOH scrubber to generate a vacuum to allow in more O_2, the generation of gases such as CH_4 and H_2S would negate this effect. The effect of this would be that aerobic respiration would be lower to nonexistent, which is what we see in Figure 3. Lastly, due to the density of clay found in the samples the formation of anaerobic zones is very likely. Clay and high moisture concentrations create a matrix that is very dense and allows for little oxygen diffusion.

Table 1 - Physical-chemical data

Depth (ft. bgs)	Initial TPH (mg/kg-dry)	Initial Moisture (%)	Initial Total Solids (%)	Initial Volatile Solids (%)	TPH w/ UltraTech UltraMicrobes (mg/kg-dry)	Moisture w/ UltraTech UltraMicrobes (%)	TPH w/ Probiotic Scrubber II (mg/kg-dry)	Moisture w/ Probiotic Scrubber II (%)	TPH Control (mg/kg-dry)	Moisture Control (%)
5-10	819	2	83.9	3.2	1198	13	923	14	939	13
10-15	1002	4.9	83.2	3.3	525	13	354	10	255	13
5-15	1518	<1.0	76.5	3.3	<180	17	368	16		

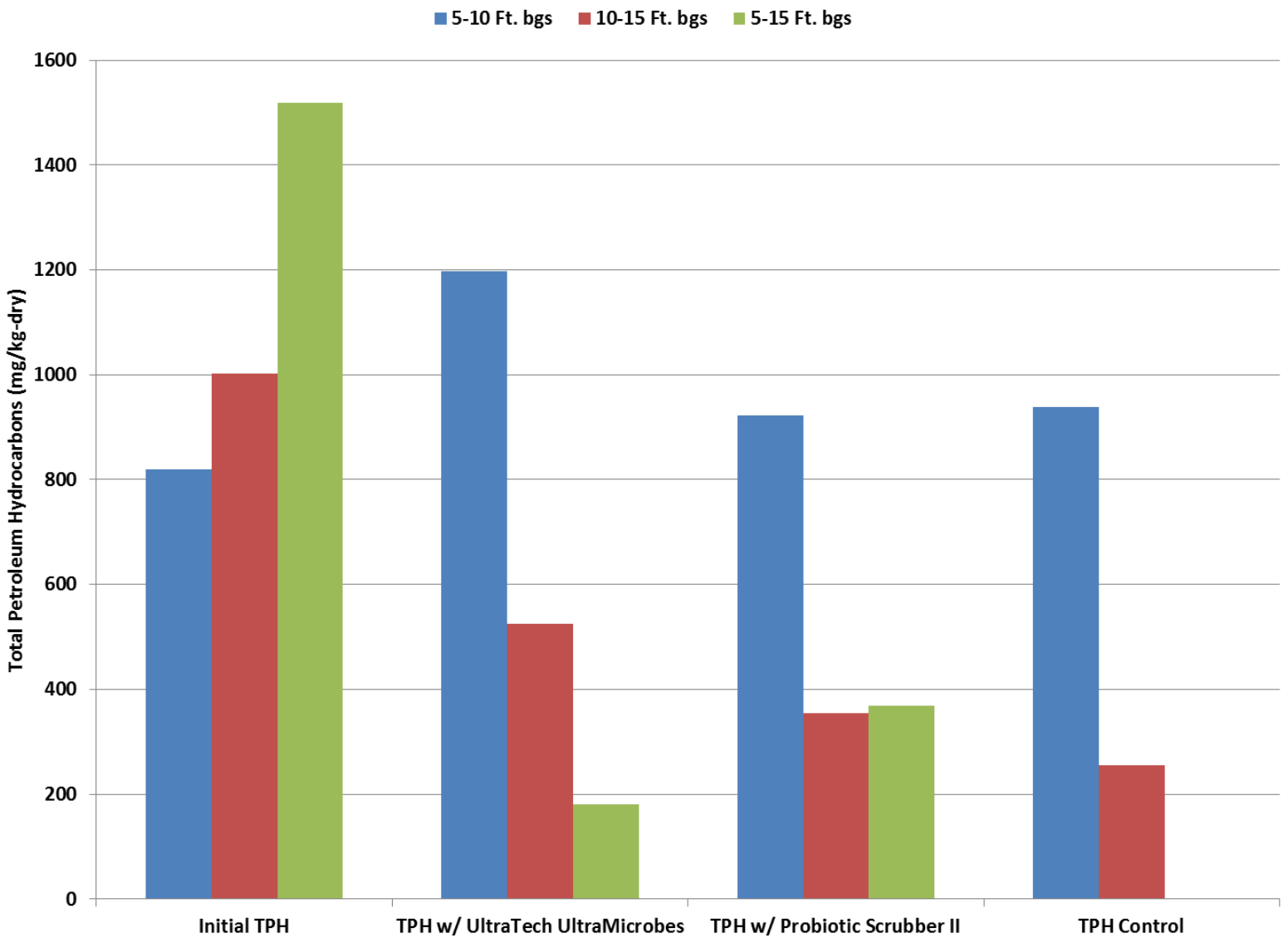

Figure 2 - Bar graph of TPH results.

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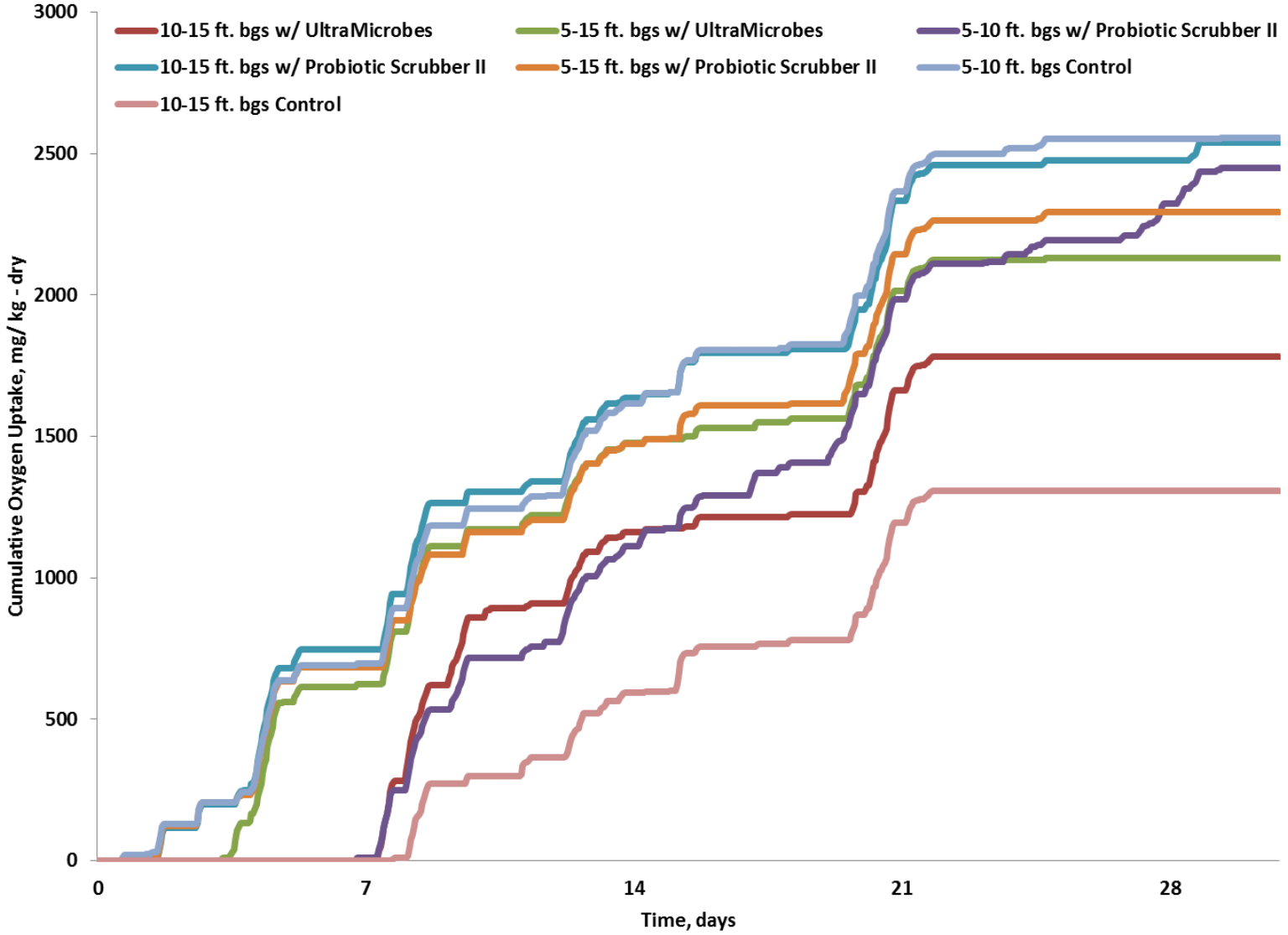

Figure 3 - Cumulative oxygen uptake of soil reactors over 30 day incubation

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Appendix

Test Plan for TPH removal in Soil

October 2013

Objectives:

The objective of this study is to investigate the feasibility of augmentation to enhance the biological removal of total petroleum hydrocarbons (TPH) in soil.

Soil Sampling:

Soil samples could not be sieved due to soil lithology. An effort was made to remove any larger particles prior to placing the samples in soil jars.

Soil sample quantity will be about three pounds for each of the following soil sample intervals:

- 5-10 feet below ground surface (ft bgs)
- 10-15 ft bgs
- 5-15 ft bgs

Test Methods

This study will consist of Initial soil characteristic, and Respirometer test. Initial soil characteristic tests are to measure fundamental information of soil. Respirometer test is to evaluate the feasibility of augmentation to enhance the bioactivity for removal of TPH in soil. This test will simulate the soil remediation site with Challenge respirometer soil/compost reactor columns. After completion of the respirometer test, soil characteristics will be measured again to estimate the removal of TPH.

Initial soil characteristic

Once the soil sample received, TS/VS and TPH will be measured as initial soil characteristic.

Respirometer test

The Challenge respirometer soil/compost reactor will be set up, one control vs. three augmented samples. Each reactor has 100g soil inside cell and 50 ml of DI water in the bottom of the reactor to provide humidity. Oxygen consumption from the reactors will be monitored for 30 days.

Detail set up procedure as below:

1. Place the soil sample in the inner column. Pack the sample by gently tamping the inner column on a solid surface; place the cap on the top of the packed inner soil column; place the inner column into the soil reactor column; place a KOH vial into the depression of the cap; place 5 mL of 30% KOH into the plastic vial; place the o-ring on the top of the outer soil reactor column and tighten the cap snuggly.

2. Position each column in the water bath on the stirring base. Temperature in the water bath will be set with the average temperature of the sampling site. Adjust the stirring speed between 100 and 200 RPM. This will allow the fan to gently circulate air around the sample.

3. Connect the 10cc syringe (plunger at 0cc) and Tygon tubing to the side port of the 3-way valve; adjust the 3-way valve so that all outlets are open; pull back the syringe until a bubble is drawn through the flow-cell and breaks the beam of light. The flow-cell is now zeroed and ready for counting.

4. Turn the handle of the valve so that the valve is open between the flow-cell and the soil reactor column and closed to the syringe.

5. Open oxygen cylinder, start program Challenge AER-ANR, and start data acquisition.

6. After 30 days operation, stop the data acquisition and TS/VS and TPH will be measured from the soil inside the reactor.

Microbe Dosage/Sample Application

Two microbial formulations will be added to the soil samples as part of this testing. Dosage is as follows:

Oppenheimer Biotechnology, Inc - Archaea

0.037 grams (g) microbe formulation + 0.007 g All-Purpose Miracle Gro*/ 100 g soil

Biolynceus

0.039 g microbe formulation/100 g soil

Soil samples will be treated at the above dosages as follows:

- 5-10 ft bgs + Archaea + Miracle Gro*
- 10-15 ft bgs + Archaea + Miracle Gro*
- 5-15 ft bgs + Archaea + Miracle Gro*
- 5-10 ft bgs + Biolynceus
- 10-15 ft bgs + Biolynceus
- 5-15 ft bgs + Biolynceus
- 5-10 ft bgs control (no additions)
- 10-15 ft bgs control (no additions)

*Any all-purpose fertilizer will suffice. Fertilizer will ensure there is no shortage of Phosphorus, so a formulation containing more phosphorus (such as a seed-starting formulation) is preferred.

Appendix B

AOI 09-B Permit Reports and Analytical Data

ARCADIS

2013 Air Reports

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www.arcadis-us.com

ENVIRONMENT

Mr. Michael McClellan
District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
April 2013 Monthly VOC Emissions Report
Revitalizing Auto Communities Environmental Response Trust
Permit No. 165-11
1200 East Hamilton Ave., Flint, Michigan

Date:
May 15, 2013

Contact:
Edward Cote

Phone:
248-994-2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), is submitting the attached monthly data for the RACER facility located at 1200 East Hamilton Avenue in Flint, Michigan [State Registration Number (SRN) A1178]. The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and the VOC emission rates (see attached Table 1).

On 4/9/2013, the remediation system at 1200 East Hamilton Avenue in Flint, Michigan began operation. The system is a multi-phase extraction (MPE) system which includes a soil vapor extraction system (SVE) and an air stripper (AS). April 2013 operations are summarized below:

- The system commenced operations on 4/9/2013 with all 28 MPE wells from three “zones” of wells operating.
- On 4/12/2013, a compressor failed, causing the system to shut down.
- The system was re-started on 4/15/2013, but was once again shut down on 4/16/2013 due to an oil water separator (OWS) high level alarm. A vapor sample was collected on 4/16/2013 prior to shut down (28 wells were operating at the time of sample collection). While the system was shut down, groundwater samples were analyzed and indicated that the MPE system operations needed to be modified in order for the effluent to remain in

compliance with the City of Flint Publically Owned Treatment Works (POTW) wastewater discharge permit.

- Operations recommenced on 4/22/2013 with only 6 wells operational. A vapor sample was collected on 4/22/2013.
- The system has been operating intermittently since 4/22/2013 and additional MPE wells are being brought on line every 1-2 weeks of operation.

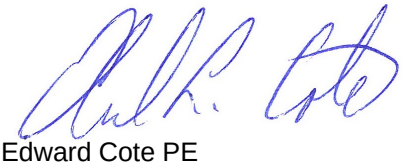
During the month of April 2013, the MPE system operated 87 hours from 4/9/2013 through 4/16/2013 (with 28 wells operational) and 38 hours from 4/22/2013 through 4/30/2013 (with 6 wells operational) for a total of 125 operating hours. The thermal oxidizer operated at all times that the MPE system operated and volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

As shown in the attached Table 1, the VOC concentrations decreased significantly from the 4/16/2013 sample to the 4/22/2013 sample. This is due to both the reduction in the number of wells operating and the location of the 6 wells (further away of center the source area). As additional wells are added during May 2013, VOC concentrations are expected to increase again. Subsequent samples were collected on 5/3/2013 and 5/10/2013 and will be included in the May 2013 report.

Please call me at 248-994-2295 if you have any questions.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward Cote PE
Principal Engineer

Enclosures: 1

Copies:
Brad Myott, MDEQ Lansing District
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan			
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
4/1/2013	4/30/2013		

Note: Operations commenced on 4/9/2013

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
4/16/2013	572	129.4	201.5	13384.9	97.5	0.2596
4/22/2013[3]	437.25	12.5	82.55	21.9	97.5	0.0007

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equipme milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.
[3] Analytical results for the 4/22/2013 C1 sample point was non-detect for GRO (C5-C10) and TPH (as gasoline). Conservatively, the detection limit (2.8 ppm) was used in emission calculations.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s\,\frac{lbs}{hr} = \left[\left(V1\,\frac{ft^3}{min}\times 0.02832\,\frac{m^3}{ft^3}\times 60\,\frac{min}{hr}\times C1\,\frac{mg}{m^3}\times 0.001\,\frac{g}{mg}\times 0.002205\,\frac{lbs}{g}\right)+\left(V2\,\frac{ft^3}{min}\times 0.02832\,\frac{m^3}{ft^3}\times 60\,\frac{min}{hr}\times C2\,\frac{mg}{m^3}\times 0.001\,\frac{g}{mg}\times 0.002205\,\frac{lbs}{g}\right)\right]\times\frac{(100-E_s)}{100}$$

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Fax 248.994.2241
www.arcadis-us.com

ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, Michigan 48909-7760

Subject:
May 2013 Monthly VOC Emissions Report, Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan

Date:
June 14, 2013

Contact:
Edward Cote

Phone:
248-994-2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), is submitting the attached monthly data for the RACER facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total volatile organic compound (VOC) concentration of the vapor streams into the oxidizer, and the VOC emission rates (see attached Table 1).

During the month of May 2013, the multi-phase extraction (MPE) system operated a total of 553 hours. Vapor samples were collected on 5/3/2013, 5/10/2013, and 5/17/2013. The 5/17/2013 sample was our fifth weekly sample. Beginning in June 2013, we will commence monthly sampling as allowed under Special Condition VI.3 of the permit.

The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11. As shown in the attached Table 1, influent VOC concentrations increased throughout the subsequent samples in May. As additional wells are added during June 2013, influent VOC concentrations are expected to continue to increase.

Please call me at 248-994-2295 if you have any questions.

Sincerely,

ARCADIS G&M of Michigan, LLC

Edward Cote, P.E.
Principal Engineer

Enclosures

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
5/1/2013	5/31/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
5/3/2013[3]	960	5.8	495	11.2	97.5	0.0010
5/10/2013	294.54	0.6	108.59	112.3	97.5	0.0012
5/17/2013	255	45.8	102.18	457.5	97.5	0.0055

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).

[2] Idenfity which pollutant the emissions are being calculated for.

[3] Analytical results for the 5/3/2013, C1 sample point was non-detect for GRO (C5-C10) and TPH (as gasoline). Conservatively, the detection limit (1.4 ppm) was used in emission calculations.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

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Fax 248.994.2241
www.arcadis-us.com

ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
June 2013 Monthly VOC Emissions Report for Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan.

Date:
July 11, 2013

Contact:
Edward Cote, PE

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) is submitting the attached monthly data for the facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and calculations of the VOC emission rates (see Table 1).

During the month of June 2013, the multi-phase extraction (MPE) system operated a total of 306.3 hours. One vapor sample was collected on 6/11/2013, as required under Special Condition VI.3 of the permit. The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

Sincerely,
ARCADIS G&M of Michigan, LLC

Edward L. Cote, PE
Principal Engineer

Enclosures: 1

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
6/1/2013	6/30/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
6/11/2013	232.96	27.0	393.18	120.0	97.5	0.0050

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

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ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
July 2013 Monthly VOC Emissions Report for Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan.

Date:
August 15, 2013

Contact:
Edward Cote, PE

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) is submitting the attached monthly data for the facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and calculations of the VOC emission rates (see Table 1).

During the month of July 2013, the multi-phase extraction (MPE) system operated a total of 396.12 hours. One vapor sample was collected on 7/17/2013, as required under Special Condition VI.3 of the permit. The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

Sincerely,

ARCADIS G&M of Michigan, LLC

Edward L. Cote, PE
Principal Engineer

Enclosures: 1

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
7/1/2013	7/31/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
7/11/2013	176.68	200.0	135.73	2300.0	97.5	0.033

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

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Michigan 48377
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Fax 248.994.2241
www.arcadis-us.com

ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
August 2013 Monthly VOC Emissions Report for Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan.

Date:
September 13, 2013

Contact:
Edward Cote, PE

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) is submitting the attached monthly data for the facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and calculations of the VOC emission rates (see Table 1).

During the month of August 2013, the multi-phase extraction (MPE) system operated a total of 429.4 hours. One vapor sample was collected on 8/14/2013, as required under Special Condition VI.3 of the permit. The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

Sincerely,

ARCADIS G&M of Michigan, LLC

Edward L. Cote, PE
Principal Engineer

Enclosures: 1

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
8/1/2013	8/31/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
8/14/2013	180.34	24.0	205.74	300.0	97.5	0.006

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

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ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
September 2013 Monthly VOC Emissions Report for Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan.

Date:
October 14, 2013

Contact:
Edward Cote, PE

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) is submitting the attached monthly data for the facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and calculations of the VOC emission rates (see Table 1).

During the month of September 2013, the multi-phase extraction (MPE) system operated a total of 596.3 hours. One vapor sample was collected on 9/24/2013, as required under Special Condition VI.3 of the permit. The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

Sincerely,
ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Enclosures: 1

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
9/1/2013	9/30/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
9/24/2013	182.22	0.74	205.47	220.0	97.5	0.004

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

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ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
October 2013 Monthly VOC Emissions Report for Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan.

Date:
November 15, 2013

Contact:
Edward Cote, PE

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) is submitting the attached monthly data for the facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and calculations of the VOC emission rates (see Table 1).

During the month of October 2013, the multi-phase extraction (MPE) system operated a total of 646.2 hours. One vapor sample was collected on 10/9/2013, as required under Special Condition VI.3 of the permit. The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

Sincerely,
ARCADIS G&M of Michigan, LLC

Edward L. Cote, PE
Principal Engineer

Enclosures: 1

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
10/1/2013	10/31/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
10/9/2013	155.53	2.50	203.46	470.0	97.5	0.009

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

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ENVIRONMENT

District Supervisor
Michigan Department of Environmental Quality
Air Quality Division – Lansing District
Constitution Hall, 4th Floor
525 W. Allegan
Lansing, MI 48909-7760

Subject:
November 2013 Monthly VOC Emissions Report for Revitalizing Auto Communities Environmental Response Trust, Permit No. 165-11, 1200 East Hamilton Ave., Flint, Michigan.

Date:
December 13, 2013

Contact:
Edward Cote, PE

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear District Supervisor:

Pursuant to Special Condition VII.1 of Permit No. 165-11, ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) is submitting the attached monthly data for the facility located at 1200 East Hamilton Avenue in Flint, Michigan (SRN A1178). The monthly data includes the flow rate and total VOC concentration of the vapor streams into the oxidizer, and calculations of the VOC emission rates (see Table 1).

During the month of November 2013, the multi-phase extraction (MPE) system operated a total of 506.3 hours prior to being shut down for the winter season on November 25, 2013. The shutdown was necessary in order to prevent any freezing of the conveyance lines as well as any potential damage to the treatment system. One vapor sample was collected on 11/20/2013, as required under Special Condition VI.3 of the permit. The thermal oxidizer operated at all times that the MPE system operated and VOC and hazardous air pollutant (HAP) emissions were within the limits of Permit No. 165-11.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Enclosures: November Air Permit Table

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

Table 1. Remediation Emission Calculation and Recordkeeping, Race-Trust-Racer Buick City, Flint, Michigan, Permit # 165-11

Source Name		**Contact Person**	
Race-Trust-Racer Buick City		Edward Cote, PE	
Location		**County**	
Flint, Michigan		Genesee	
Record Keeping Period		**Permit Number**	**Pollutant(s)**
Start Date	**End Date**	165-11	VOC
11/1/2013	11/30/2013		

	V1	C1	V2	C2	E_s	P_s
Date	**Sample Point 1: Air Volume Flow Rate (ft^3/min)**	**Sample Point 1: Inlet Concetration (mg/m^3)[1]**	**Sample Point 2: Air Volume Flow Rate (ft^3/min)**	**Sample Point 2: Inlet Concetration (mg/m^3)[1]**	**Control Efficiency (Percent)**	**VOC Emissions (lbs/hr)[2]**
11/20/2013	191.86	31.00	172.97	110.0	97.5	0.002

Notes:
Sample Point 1 = Oil Water Separator (OWS) and Air Stripper (AS) Influent
Sample Point 2 = Soil Vapor Extraction (SVE) Influent

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/L).
[2] Idenfity which pollutant the emissions are being calculated for.

Equation to Calculate Emissions:

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

ARCADIS

2013 POTW Reports

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ENVIRONMENT

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
April 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

Date:
May 24, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during April 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of April 2013, 7,310.9 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1).

To monitor system initial performance, upon start-up of the treatment system, an individual effluent grab wastewater sample was collected on April 11, 2013, 2 days after full-scale system operation. The sample was analized for:

- ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E624M,
- total mercury according to USEPA Method EPA 245.1,
- PCBs according to USEPA Method E608,
- pH (field measured),

- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

An additional effluent grab wastewater sample was collected on April 22, 2013 and analyzed for benzene, toluene, ethyl benzene and total xylenes (BTEX) according to USEPA Method E624.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on April 30, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- mmonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E624M,
- total mercury according to USEPA Method EPA 245.1, and
- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured),
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected during start up and shake down on April 11, 2013 resulted in exceedances for ethylbenzene and total xylenes. Results were reported above permit limitations at 0.16 miligrams per liter (mg/L) for ethylbenzene and 0.6 mg/L for total xylenes respectively. All remaining analytical results of the effluent wastewater samples collected on April 11, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

The City of Flint Water Pollution Control Division was notified of the exceedance orally on April 18, 2013. A written notice of the exceedance was sent out to the City of Flint Water Pollution Control Division on April 30, 2013 and is included in Attachment 3.

Analytical results from the effluent sample collected on April 22, 2013 reported below laboratory method detection limits and/or below permit limitations (see Table 2).

Analytical results from the effluent samples collected on April 30, 2013 during start up and shake down for total zinc were reported above permit limitations at 0.492 mg/L. All remaining analytical results of the effluent wastewater samples collected on April 30, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

The City of Flint Water Pollution Control Division was notified of the exceedance orally on May 17, 2013. A written notice of the exceedance was sent out to the City of Flint Water Pollution Control Division on May 21, 2013 and is included in Attachment 3.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.80	7,310.90

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.27	0.02	11	1	0.03	0.01	11	1	0.007	0.002	<	0.0005	<	0.005	<	0.004	0.008	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	4/16/2013		4/17/2013		4/16/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013	
Sample Date	4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013	
Sample Type	Grab		Grab		Grab		Grab		Grab		Grab		Grab		Grab		Grab	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	0.05	0.02	1	1	0.08	0.01	1	1	0.005	0.002	<	0.0005	<	0.005	0.016	0.005	0.013	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	5/8/2013		5/7/2013		5/7/2013		5/2/2013		5/16/2013		5/16/2013		5/16/2013		5/16/2013		5/16/2013	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Average Daliy Conc.	0.32		6		0.055		6		0.006		<		<		0.008		0.011	
No. of Samples	2		2		2		2		2		2		2		2		2	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	0.007	0.005	<	0.0005	0.095	0.005	7.6		<	1	<	0.005	<	0.02	0.16	0.02
Test Method	E245.1		E200.8		E200.8		E200.8		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	4/15/2013		4/12/2013		4/12/2013		4/12/2013		4/11/2013		4/15/2013		4/15/2013		4/16/2013		4/16/2013	
Sample Date	4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013	
Sample Type	Grab		Grab		Grab		Grab		Grab		Grab		Grab		Grab		Grab	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.4		Not Sampled		Not Sampled		<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		NA		NA		E624		E624	
Test Date	NA		NA		NA		NA		4/22/2013		NA		NA		4/23/2013		4/23/2013	
Sample Date	4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013	
Sample Type	NA		NA		NA		NA		Grab		NA		NA		Grab		Grab	
Test Result	<	0.0002	<	0.005	<	0.0005	0.492	0.005	8.0		<	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	5/3/2013		5/16/2013		5/16/2013		5/16/2013		4/30/2013		5/8/2013		5/8/2013		5/3/2013		5/3/2013	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		8.2		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		4/30/2013		5/8/2013		5/8/2013		5/3/2013		5/3/2013	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	NA		NA		NA		NA		Grab		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		8.3		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		4/30/2013		5/8/2013		5/8/2013		5/3/2013		5/3/2013	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	NA		NA		NA		NA		Grab		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		8.3		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		4/30/2013		5/8/2013		5/8/2013		5/3/2013		5/3/2013	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	NA		NA		NA		NA		Grab		Grab04		Grab04		Grab04		Grab04	
Average Daliy Conc.	<		0.004		<		0.294		8.0		0		<		<		0.03	
No. of Samples	2		2		2		2		6		5		5		6		6	
Number of Limit Exceedances	0		0		0		1		0		0		0		0		1	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Tolune	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	0.14	0.02	0.6	0.06	< (Excluding BTEX)	Varies	0.090 (Naphthalene)	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	4/16/2013		4/16/2013		4/16/2013		4/15/2013		4/15/2013	
Sample Date	4/11/2013		4/11/2013		4/11/2013		4/11/2013		4/11/2013	
Sample Type	Grab		Grab		Grab		Grab		Grab	
Test Result	<	0.001	<	0.003	Not Sampled		Not Sampled		Not Sampled	
Test Method	E624		E624		NA		NA		NA	
Test Date	4/23/2013		4/23/2013		NA		NA		NA	
Sample Date	4/22/2013		4/22/2013		4/22/2013		4/22/2013		4/22/2013	
Sample Type	Grab		Grab		NA		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	0.010 (bis(2-Ethylhexyl)phthalate	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	5/3/2013		5/3/2013		5/3/2013		5/10/2013		5/6/2013	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	5/3/2013		5/3/2013		5/3/2013		NA		NA	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	5/3/2013		5/3/2013		5/3/2013		NA		NA	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	5/3/2013		5/3/2013		5/3/2013		NA		NA	
Sample Date	4/30/2013		4/30/2013		4/30/2013		4/30/2013		4/30/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Average Daliy Conc.	0.023		0.1		<		0.05		<	
No. of Samples	6		6		5		2		2	
Number of Limit Exceedances	0		1		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Supplemental Report

Report ID: S56057.01(03)
Generated on 04/26/2013
Replaces report S56057.01(02) generated on 04/17/2013

Report to

Attention: TSwarthout/AKrevinghaus/TMaffeo
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-229-8594 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Andy Ball (andyball@meritlabs.com)
Tabitha Faust (tfaust@meritlabs.com)

Report Summary

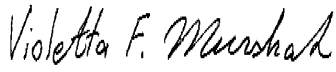
Lab Sample ID(s): S56057.01-S56057.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 04/11/2013
Submitted Date/Time: 04/12/2013 08:00
Sampled by: DNewcom,TSwarthout
P.O. #: B0064410.2013.0

Added Xylenes to .05 per client request

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.



Violetta F. Murshak
Laboratory Director

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56057.01	OWS_Effluent_041113	Water	04/11/2013 13:55
S56057.02	AS_Effluent_041113	Water	04/11/2013 13:50
S56057.03	GAC_Influent_041113	Water	04/11/2013 13:45
S56057.04	GAC_Midfluent_041113	Water	04/11/2013 13:40
S56057.05	GAC_Effluent_041113	Water	04/11/2013 13:30

Lab Sample ID: S56057.05
Sample Tag: GAC_Effluent_041113
Collected Date/Time: 04/11/2013 13:30
Matrix: Water
COC Reference: BC041113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.8	IR
1	125ml Plastic	HNO3	Yes	4.8	IR
1	125ml Plastic	NaOH	Yes	4.8	IR
1	32oz Glass	HCL	Yes	4.8	IR
1	1L Plastic	None	Yes	4.8	IR
4	1L Amber	None	Yes	4.8	IR
1	250ml Plastic	H2SO4	Yes	4.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	04/12/13 21:35	EMR		
Extraction, PCB	Completed			3510C	04/15/13 10:45	ADB		
Mercury Digestion	Completed			E245.1	04/15/13 08:45	CCM		
Metal Digestion	Completed			3015A	04/12/13 13:00	PER		
pH check for VOCs	<2	STD Units		N/A	04/16/13 10:54	JGH		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	04/15/13 11:02	JDP	57-12-5AM	
Ammonia-N (Undistilled)	0.27	mg/L	0.02	4500-NH3 D	04/16/13 11:42	MJC	7664-41-7	
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	04/15/13 10:09	ADB		
TBOD5 - Set	Completed	mg/L		10360	04/12/13 13:00	RGS		
TBOD5	11	mg/L	1	10360	04/17/13 13:00	RGS		
Total Phosphorus	0.03	mg/L	0.01	4500-PE	04/16/13 13:20	MJC	7723-14-0	
Total Suspended Solids	11	mg/L	1	2540 D	04/12/13 16:45	ASB		
Metals								
Arsenic	0.007	mg/L	0.002	E200.8	04/12/13 17:04	PER	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	04/12/13 17:04	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	04/12/13 17:04	PER	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	04/12/13 17:04	PER	7440-50-8	
Lead	0.008	mg/L	0.003	E200.8	04/12/13 17:04	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	04/15/13 15:41	CCM	7439-97-6	
Nickel	0.007	mg/L	0.005	E200.8	04/12/13 17:04	PER	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	04/12/13 17:04	PER	7440-22-4	
Zinc	0.095	mg/L	0.005	E200.8	04/12/13 17:04	PER	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	04/15/13 14:40	JAN	1336-36-3	

Lab Sample ID: S56057.05 (continued)
Sample Tag: GAC_Effluent_041113

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	92-87-5	
Benzo(a)anthracene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	78-59-1	
Naphthalene	90	ug/L	10	E625M	04/15/13 18:01	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	534-52-1	

Lab Sample ID: S56057.05 (continued)
Sample Tag: GAC_Effluent_041113

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Phenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	88-06-2	
Phenanthrene	Not detected	ug/L	10	E625M	04/15/13 18:01	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	04/15/13 18:01	PL		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	200	E624	04/16/13 02:42	JGH	107-02-8	Y
Acrylonitrile	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	107-13-1	Y
Benzene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	71-43-2	Y
Bromodichloromethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-27-4	Y
Bromoform	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-25-2	Y
Bromomethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	74-83-9	Y
Carbon tetrachloride	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	56-23-5	Y
Chlorobenzene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	108-90-7	Y
Chloroethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-00-3	Y
2-Chloroethylvinyl ether	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	110-75-8	Y
Chloroform	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	67-66-3	Y
Chloromethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	74-87-3	Y
Dibromochloromethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	124-48-1	Y
1,1-Dichloroethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-34-3	Y
1,2-Dichloroethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	107-06-2	Y
1,1-Dichloroethene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-35-4	Y
trans-1,2-Dichloroethene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	156-60-5	Y
1,2-Dichloropropane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	78-87-5	Y
cis-1,3-Dichloropropene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	10061-02-6	Y
Ethylbenzene	160	ug/L	20	E624	04/16/13 02:42	JGH	100-41-4	Y
Methylene chloride	Not detected	ug/L	100	E624	04/16/13 02:42	JGH	75-09-2	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	79-34-5	Y
Tetrachloroethene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	127-18-4	Y
Toluene	140	ug/L	20	E624	04/16/13 02:42	JGH	108-88-3	Y
1,1,1-Trichloroethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	71-55-6	Y
1,1,2-Trichloroethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	79-00-5	Y
Trichloroethene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	79-01-6	Y
Vinyl chloride	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-01-4	Y
1,2-Dichlorobenzene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	95-50-1	Y
1,3-Dichlorobenzene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	541-73-1	Y
1,4-Dichlorobenzene	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	106-46-7	Y
Trichlorofluoromethane	Not detected	ug/L	20	E624	04/16/13 02:42	JGH	75-69-4	Y
Xylenes								
p,m-Xylene	420	ug/L	40	E624	04/16/13 02:42	WAT		Y
o-Xylene	180	ug/L	20	E624	04/16/13 02:42	WAT	95-47-6	Y

Y-Elevated reporting limit due to high target concentration

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC041113.1

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City State Zip: Brighton, MI	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: D.Newcom, T.Swarthout	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	Ammonia & phosphorus	BOD & Suspended Solids	Oil & Grease	Amenable Cyanide	VOCs TTO	BTEX	SVOCs TTO	TPH GRO (C6-C12)	PCBs	REMARKS
Preservative						D	A	E	B	C	B	B	E	B	E	
# of Containers						1	1	1	1	1	2	2	2	1	2	
Container Information						3	4	10	10	3	1	1	2	10	2	
56057.01 OWS_Effluent_041113	4/11/13	1355		x	w						x			x		2 day TAT
.02 AS_Effluent_041113	4/11/13	1350		x	w										x	Std TAT
.03 GAC_Influent_041113	4/11/13	1345		x	w							x			x	2 day TAT for BTEX, std TAT for PCB
.04 GAC_Midfluent_041113	4/11/13	1340		x	w							x				2 day TAT
.05 GAC_Effluent_041113	4/11/13	1330		x	w		x	x	x	x	x	x		x		x	2 day TAT

PARAMETER ANALYSIS & METHOD

KEYS

Preservation Key:
A. H_2SO_4
B. HCL
C. NaOH
D. HNO_3
E. None
F.
G.
H.

Container Information Key:
1. 40 mL VOA
2. 1 L Amber
3. 125 mL Plastic
4. 250 mL Plastic
5. 500 mL Plastic
6. 1 L Plastic
7. 2 oz. Glass
8. 4 oz. Glass
9. 8 oz. Glass
10. Other

Matrix Key:
SE = Sediment
S= Solids
A = Air
NL = NAPL / Oil
L= Liquid
SW = Surface

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007**

Special QA/QC Instructions (✓): Standard deliverable, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: D.Newcom	Printed Name:	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard TAT	Sample Receipt:	Firm: ARCADIS	Firm: Merit	Firm: Merit
Fed-Ex Tracking #:	Condition/Cooler Temp: 4.8	Date/Time: 4-11-13 1415	Date/Time: 4-11-13 1415	Date/Time: 4-12-13 800

Analytical Laboratory Report

Report ID: S56177.01(01)
Generated on 04/24/2013

Report to

Attention: TSwarthout/AKrevinghaus/TMaffeo
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-229-8594 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Andy Ball (andyball@meritlabs.com)
Tabitha Faust (tfaust@meritlabs.com)

Report Summary

Lab Sample ID(s): S56177.01
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 04/22/2013
Submitted Date/Time: 04/23/2013 11:10
Sampled by: DNewcom,TSwarthout
P.O. #: B0064410.2013.0

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56177.01	AOI-09B-GAC-EFF-GRAB01 (042213)	Water	04/22/2013 16:00

Analytical Laboratory Report

Lab Sample ID: S56177.01
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (042213)
Collected Date/Time: 04/22/2013 16:00
Matrix: Water
COC Reference: BC042213.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	04/24/13 11:00	WAT		
Organics - Volatiles								
BTEX, GC/MS								
Benzene	Not detected	ug/L	1	SW8260B	04/23/13 15:41	WAT	71-43-2	
Toluene	Not detected	ug/L	1	SW8260B	04/23/13 15:41	WAT	108-88-3	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/23/13 15:41	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/23/13 15:41	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	04/23/13 15:41	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

BC042213.1

eCOC ID: ~~BC041113.1~~

Contact & Company Name:	Telephone:	Preservative	B									
Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	810.225.1900											
Address:	Fax:	# of Containers	2									
10559 Citation Drive		Container	1									
City State Zip	Email	PARAMETER ANALYSIS & METHOD										
Brighton, MI	See comments		BTEX									
Project Name/Location (City, State):	Project #:											
Buick City Site # 1295 Task 1500	B0064410.2013.01500											
Sampler's Printed Name:	Sampler's Signature:											
D.Newcom, T.Swarthout												

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix										REMARKS
AOI-09B-GAC-EFF-GRAB01 (042213)	4/22/13	16:00		x	w		x								24hr TAT

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007**

Special QA/QC Instructions (✓): ~~Standard deliverable~~, EDD
LEVEL II

Laboratory Information and Receipt	Relinquished By	Received By	Relinquished By
Lab Name: Merit	Printed Name: T. Swarthout	Printed Name: D.Newcom	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)	Signature:	Signature:	Signature: Tabitha Faust
Specify Turnaround Requirements: 24 hr TAT	Firm: ARCADIS	Firm: ~~Merit~~ ARCADIS	Firm: Merit
Fed-Ex Tracking #:	Date/Time:	Date/Time: 4/23/13 1110	Date/Time: 4/23/13 1110

Analytical Laboratory Report

Supplemental Report

Report ID: S56262.01(02)
Generated on 05/17/2013
Replaces report S56262.01(01) generated on 05/16/2013

Report to

Attention: TSwarthout/AKrevinghaus/TMaffeo/
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-229-8594 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S56262.01-S56262.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 04/30/2013
Submitted Date/Time: 05/01/2013 13:30
Sampled by: DNewcom,TSwarthout
P.O. #: B0064410.2013.0

All analysis complete

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
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Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56262.01	AOI-09B-GAC-EFF-GRAB01 (043013)	Water	04/30/2013 09:30
S56262.02	AOI-09B-GAC-EFF-GRAB02 (043013)	Water	04/30/2013 10:30
S56262.03	AOI-09B-GAC-EFF-GRAB03 (043013)	Water	04/30/2013 11:30
S56262.04	AOI-09B-GAC-EFF-GRAB04 (043013)	Water	04/30/2013 12:30
S56262.05	AOI-09B-GAC-EFF-COMPOSIT (043013)	Water	04/30/2013 13:00

Lab Sample ID: S56262.01
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (043013)
Collected Date/Time: 04/30/2013 09:30
Matrix: Water
COC Reference: BC041113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	4.7	IR
3	40ml Glass	HCL	Yes	4.7	IR
1	125ml Plastic	NaOH	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/06/13 10:55	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	05/08/13 12:08	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	05/08/13 12:23	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	05/03/13 15:28	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	107-13-1	
Benzene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	05/03/13 15:28	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	127-18-4	
Toluene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56262.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (043013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	05/03/13 15:28	JGH		
o-Xylene	Not detected	ug/L	1	E624	05/03/13 15:28	JGH	95-47-6	

Lab Sample ID: S56262.02
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (043013)
Collected Date/Time: 04/30/2013 10:30
Matrix: Water
COC Reference: BC041113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	4.7	IR
3	40ml Glass	HCL	Yes	4.7	IR
1	125ml Plastic	NaOH	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/06/13 10:55	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	05/08/13 12:16	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	05/08/13 12:23	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	05/03/13 15:50	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	107-13-1	
Benzene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	05/03/13 15:50	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	127-18-4	
Toluene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56262.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (043013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	05/03/13 15:50	JGH		
o-Xylene	Not detected	ug/L	1	E624	05/03/13 15:50	JGH	95-47-6	

Lab Sample ID: S56262.03
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (043013)
Collected Date/Time: 04/30/2013 11:30
Matrix: Water
COC Reference: BC041113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	4.7	IR
3	40ml Glass	HCL	Yes	4.7	IR
1	125ml Plastic	NaOH	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/06/13 10:55	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	05/08/13 12:18	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	05/08/13 12:23	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	05/03/13 16:12	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	107-13-1	
Benzene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	05/03/13 16:12	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	127-18-4	
Toluene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56262.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (043013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	05/03/13 16:12	JGH		
o-Xylene	Not detected	ug/L	1	E624	05/03/13 16:12	JGH	95-47-6	

Lab Sample ID: S56262.04
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (043013)
Collected Date/Time: 04/30/2013 12:30
Matrix: Water
COC Reference: BC041113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	4.7	IR
3	40ml Glass	HCL	Yes	4.7	IR
1	125ml Plastic	NaOH	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/06/13 10:55	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	05/08/13 12:20	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	05/08/13 12:23	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	05/03/13 16:35	JGH	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	107-13-1	
Benzene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	110-75-8	
Chloroform	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	05/03/13 16:35	JGH	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	127-18-4	
Toluene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56262.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (043013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	05/03/13 16:35	JGH		
o-Xylene	Not detected	ug/L	1	E624	05/03/13 16:35	JGH	95-47-6	

Lab Sample ID: S56262.05
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (043013)
Collected Date/Time: 04/30/2013 13:00
Matrix: Water
COC Reference: BC041113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
4	1L Amber	None	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR
1	250ml Plastic	H2SO4	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	05/07/13 22:56	EMR		
Extraction, PCB	Completed			3510C	05/06/13 8:36	ADB		
Mercury Digestion	Completed			E245.1	05/03/13 10:00	CCM		
Metal Digestion	Completed			3015A	05/16/13 10:00	PER		
Inorganics								
Ammonia-N (Undistilled)	0.05	mg/L	0.02	4500-NH3 D	05/08/13 13:57	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	05/02/13 13:00	RGS		
TBOD5	1	mg/L	1	10360	05/07/13 13:00	RGS		
Total Phosphorus	0.08	mg/L	0.01	4500-PE	05/07/13 13:13	MJC	7723-14-0	
Total Suspended Solids	1	mg/L	1	2540 D	05/02/13 18:00	ASB		
Metals								
Arsenic	0.005	mg/L	0.002	E200.8	05/16/13 16:06	PER	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/16/13 16:06	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	05/16/13 16:06	PER	7440-47-3	
Copper	0.016	mg/L	0.005	E200.8	05/16/13 16:06	PER	7440-50-8	
Lead	0.013	mg/L	0.003	E200.8	05/16/13 16:06	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	05/03/13 15:57	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	05/16/13 16:06	PER	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	05/16/13 16:06	PER	7440-22-4	
Zinc	0.492	mg/L	0.005	E200.8	05/16/13 16:06	PER	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	05/06/13 12:33	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	92-87-5	

Lab Sample ID: S56262.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (043013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzo(a)anthracene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	10	ug/L	10	E625M	05/10/13 15:20	PL	117-81-7	B
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	20	E625M	05/10/13 15:20	PL	86-30-6	X
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	129-00-0	

B-Compound also found in associated method blank
X-Elevated reporting limit due to matrix interference

Lab Sample ID: S56262.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (043013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	88-06-2	
Phenanthrene	Not detected	ug/L	10	E625M	05/10/13 15:20	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	05/10/13 15:20	PL		

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC041113.1

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City State Zip: Brighton, MI	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: D.Newcom, T.Swarthout	Sampler's Signature:

						D	A	E	B	C	B	E	E		
						1	1	1	1	1	3	2	2		
						3	4	10	10	3	1	2	2		
						6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes	625 SVOCs TTO	608 PCBs		
															REMARKS
.01	AOI-09B-GAC-EFF-GRAB01 (043013)	4/30/2013	9:30		x	w				x	x	x			Standard 2 wk TAT
.02	AOI-09B-GAC-EFF-GRAB02 (043013)	4/30/2013	10:30		x	w				x	x	x			Standard 2 wk TAT
.03	AOI-09B-GAC-EFF-GRAB03 (043013)	4/30/2013	11:30		x	w				x	x	x			Standard 2 wk TAT
.04	AOI-09B-GAC-EFF-GRAB04 (043013)	4/30/2013	12:30		x	w				x	x	x			Standard 2 wk TAT
.05	AOI-09B-GAC-EFF-COMPOSIT (043013)	4/30/2013	13:00	x		w		x	x	x				x	x		Standard 2 wk TAT

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please Cc Erin Kozak on sample reciept**

Special QA/QC Instructions (✓): Level II, EDD

Lab Name: Merit	Printed Name: Trevor Swarthout	Printed Name: Tim Gross	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)	Signature:	Signature:	Signature: Tabitha Faust
Specify Turnaround Requirements: See Remarks	Firm: ARCADIS	Firm: Merit	Firm: Merit
Fed-Ex Tracking #:	Date/Time: 5.1.13 1200	Date/Time: 5/1/13 1200	Date/Time: 5/1/13 1330

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S56057.01(01)
Generated on 04/30/2013

Report to

Attention: TSwarthout/AKrevinghaus/TMaffeo
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-229-8594 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S56057.01-S56057.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 04/12/2013 08:00
Sampled by: DNewcom,TSwarthout
P.O. #: B0064410.2013.0

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-18)
Batch QC Results (Pages 19-35)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S56057.05
Sample Tag: GAC_Effluent_041113
Collected Date/Time: 04/11/2013 13:30
Matrix: Water
COC Reference: BC041113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	04/15/13 11:02	CN130415-W1	CN130415-W1	No	BLK/LCS/MS/MSD/DUP
Ammonia-N (Undistilled)	4500-NH3 D	04/16/13 11:42	AMN130416	AMN130416	No	BLK/LCS/MS/DUP
Oil & Grease n-Hexane Extract.	1664A	04/15/13 10:09	OGHEX130415W01	OGHEX130415W01	No	BLK/LCS
Total Phosphorus	4500-PE	04/16/13 13:20	PHS130416	PHS130416	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	04/12/13 16:45	TSS130412	TSS130412	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Cadmium	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Chromium	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Copper	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Lead	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Mercury	E245.1	04/15/13 15:41	HG2-13-0415A	HGD-041513-2	No	LCS/BLK/MS/MSD
Nickel	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Silver	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Zinc	E200.8	04/12/13 17:04	MT2-13-0412B	MTD-041213-3	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	04/15/13 14:40	A130415	PA130415W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	04/15/13 18:01	Z130415	SF130412W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
VOCs, TTO List	E624	04/16/13 02:42	130415B3	VF130415W1	Yes	LCS/BLK/LCSD
Xylenes	E624	04/16/13 02:42	130415B3	VF130415W1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130416

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Ammonia-N (Undistilled)	4500-NH3 D	04/16/13 11:42	AMN130416

Inorganics, Prep Batch ID: CN130415-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Amenable Cyanide	335.4/4500-CN-G	04/15/13 11:02	CN130415-W1

Inorganics, Prep Batch ID: OGHEX130415W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Oil & Grease n-Hexane Extract.	1664A	04/15/13 10:09	OGHEX130415W01

Inorganics, Prep Batch ID: PHS130416

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Total Phosphorus	4500-PE	04/16/13 13:20	PHS130416

Inorganics, Prep Batch ID: TSS130412

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Total Suspended Solids	2540 D	04/12/13 16:45	TSS130412

Metals, Prep Batch ID: HGD-041513-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Mercury	E245.1	04/15/13 15:41	HG2-13-0415A

Metals, Prep Batch ID: MTD-041213-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	Arsenic	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Cadmium	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Chromium	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Copper	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Lead	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Nickel	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Silver	E200.8	04/12/13 17:04	MT2-13-0412B
S56057.05	Zinc	E200.8	04/12/13 17:04	MT2-13-0412B

Organics - PCBs/Pesticides, Prep Batch ID: PA130415W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.02	PCB	E608	04/15/13 14:19	A130415
S56057.03	PCB	E608	04/16/13 12:11	F130416
S56057.05	PCB	E608	04/15/13 14:40	A130415

Organics - Semi-Volatiles, Prep Batch ID: SF130412W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.05	SVOCs, TTO List	E625M	04/15/13 18:01	Z130415

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF130415W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.01	VOCs, TTO List	E624	04/16/13 02:22	130415B3
S56057.03	BTEX	E624	04/16/13 02:02	130415B3
S56057.05	VOCs, TTO List	E624	04/16/13 02:42	130415B3
S56057.05	Xylenes	E624	04/16/13 02:42	130415B3

Organics - Volatiles, Prep Batch ID: VF130416W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.04	BTEX	E624	04/16/13 15:09	130416A3

Organics - Volatiles, Prep Batch ID: VG130412W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56057.01	TPH GRO (C6-C12)	SW8015M	04/12/13 13:43	130412A4

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56057.05

Sample Tag: GAC_Effluent_041113

Collected Date/Time: 04/11/2013 13:30

Matrix: Water

COC Reference: BC041113.1

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: A130415, Run Date: 04/15/2013 14:40, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**76.70**	34.1	137.1
DCBP		**75.70**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z130415, Run Date: 04/15/2013 18:01, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**76.40**	10.0	110.0
2-Fluorobiphenyl		**114.60**	10.0	116.0
Nitrobenzene-D5		**110.00**	10.0	114.0
Phenol-D5		**59.60**	10.0	110.0
2,4,6-Tribromophenol		**96.90**	10.0	123.0
Terphenyl-D14		**122.20**	10.0	141.0

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130415B3, Run Date: 04/16/2013 02:42, Matrix: WW, Dilution: 20

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.20**	83.0	119.0
1,2-Dichloroethane-D4		**99.00**	77.0	121.0
Toluene-D8		**100.40**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130415W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: b13041604.slcs-w.01

Run in Batch: B130416, Run Date: 04/16/2013 14:27, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**114.50**	34.1	137.1
DCBP		**116.10**	30.0	138.6

Laboratory Control Sample (LCS)

Lab Sample ID: f13041507.slcs-w.01

Run in Batch: F130415, Run Date: 04/15/2013 11:19, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**71.80**	34.1	137.1
DCBP		**77.80**	30.0	138.6

Blank (BLK)

Lab Sample ID: b13041606.sblk-w.01

Run in Batch: B130416, Run Date: 04/16/2013 15:07, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**110.20**	34.1	137.1
DCBP		**76.90**	30.0	138.6

Blank (BLK)

Lab Sample ID: f13041506.sblk-w.01

Run in Batch: F130415, Run Date: 04/15/2013 11:08, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**92.90**	34.1	137.1
DCBP		**103.00**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13041605.slcs-w.01d, Parent Sample ID: b13041604.slcs-w.01

Run in Batch: B130416, Run Date: 04/16/2013 14:44, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**90.80**	34.1	137.1
DCBP		**106.60**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13041508.slcs-w.01d, Parent Sample ID: f13041507.slcs-w.01

Run in Batch: F130415, Run Date: 04/15/2013 11:30, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**55.20**	34.1	137.1
DCBP		**74.50**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF130412W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130415.lcsw15b

Run in Batch: Z130415, Run Date: 04/15/2013 14:42, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**80.20**	10.0	110.0
2-Fluorobiphenyl		**81.50**	10.0	116.0
Nitrobenzene-D5		**97.20**	10.0	114.0
Phenol-D5		**76.70**	10.0	110.0
2,4,6-Tribromophenol		**77.60**	10.0	123.0
Terphenyl-D14		**86.80**	10.0	141.0

Blank (BLK)

Lab Sample ID: z130415.blkw15b

Run in Batch: Z130415, Run Date: 04/15/2013 13:02, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**72.00**	10.0	110.0
2-Fluorobiphenyl		**76.50**	10.0	116.0
Nitrobenzene-D5		**88.30**	10.0	114.0
Phenol-D5		**68.70**	10.0	110.0
2,4,6-Tribromophenol		**65.20**	10.0	123.0
Terphenyl-D14		**78.70**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130415.lcsdw15b, Parent Sample ID: z130415.lcsw15b

Run in Batch: Z130415, Run Date: 04/15/2013 15:16, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**76.00**	10.0	110.0
2-Fluorobiphenyl		**78.60**	10.0	116.0
Nitrobenzene-D5		**92.10**	10.0	114.0
Phenol-D5		**73.20**	10.0	110.0
2,4,6-Tribromophenol		**73.90**	10.0	123.0
Terphenyl-D14		**82.80**	10.0	141.0

Organics - Volatiles, Prep Batch ID: VF130415W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130415b3.lcsw15a

Run in Batch: 130415B3, Run Date: 04/15/2013 18:20, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.00**	83.0	119.0
1,2-Dichloroethane-D4		**97.00**	77.0	121.0
Toluene-D8		**96.40**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130415b3.blkw15a

Run in Batch: 130415B3, Run Date: 04/15/2013 21:01, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.80**	83.0	119.0
1,2-Dichloroethane-D4		**93.80**	77.0	121.0
Toluene-D8		**95.60**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130415b3.lcsw15b, Parent Sample ID: 130415b3.lcsw15a

Run in Batch: 130415B3, Run Date: 04/15/2013 18:40, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.40**	83.0	119.0
1,2-Dichloroethane-D4		**92.00**	77.0	121.0
Toluene-D8		**98.60**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF130416W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130416a3.lcsw16a

Run in Batch: 130416A3, Run Date: 04/16/2013 12:10, Prep Date: 04/16/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**94.80**	83.0	119.0
1,2-Dichloroethane-D4		**96.20**	77.0	121.0
Toluene-D8		**99.00**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130416a3.blkw16a

Run in Batch: 130416A3, Run Date: 04/16/2013 14:41, Prep Date: 04/16/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.80**	83.0	119.0
1,2-Dichloroethane-D4		**99.80**	77.0	121.0
Toluene-D8		**100.40**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130416a3.lcsw16b, Parent Sample ID: 130416a3.lcsw16a

Run in Batch: 130416A3, Run Date: 04/16/2013 12:30, Prep Date: 04/16/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.20**	83.0	119.0
1,2-Dichloroethane-D4		**101.20**	77.0	121.0
Toluene-D8		**100.00**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VG130412W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130412a4.lcsw12a

Run in Batch: 130412A4, Run Date: 04/12/2013 11:42, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**89.70**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130412a4.blkw12a

Run in Batch: 130412A4, Run Date: 04/12/2013 12:37, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**89.10**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130412a4.lcsw12b, Parent Sample ID: 130412a4.lcsw12a

Run in Batch: 130412A4, Run Date: 04/12/2013 12:00, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**91.10**	86.0	118.0

Inorganics, Prep Batch ID: AMN130416

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130416.LRB1

Run in Batch: AMN130416, Run Date: 04/16/2013 10:30, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130416.LCS1

Run in Batch: AMN130416, Run Date: 04/16/2013 11:08, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**96**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130416.MS1, Parent Sample ID: S56057.05

Run in Batch: AMN130416, Run Date: 04/16/2013 11:50, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**99**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130416.DP1, Parent Sample ID: S56028.02

Run in Batch: AMN130416, Run Date: 04/16/2013 13:04, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**0.8**	20

Inorganics, Prep Batch ID: CN130415-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130415-W1.LRB1

Run in Batch: CN130415-W1, Run Date: 04/15/2013 10:30, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Blank (BLK)

Lab Sample ID: CN130415-W1.LRB2

Run in Batch: CN130415-W1, Run Date: 04/15/2013 13:30, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130415-W1.LCS1

Run in Batch: CN130415-W1, Run Date: 04/15/2013 10:36, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**98**	90	110

Laboratory Control Sample (LCS)

Lab Sample ID: CN130415-W1.LCS2

Run in Batch: CN130415-W1, Run Date: 04/15/2013 13:34, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**95**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130415-W1.MS1, Parent Sample ID: S56032.02

Run in Batch: CN130415-W1, Run Date: 04/15/2013 10:42, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**90**	80	120

Matrix Spike (MS)

Lab Sample ID: CN130415-W1.MS2, Parent Sample ID: S56029.01

Run in Batch: CN130415-W1, Run Date: 04/15/2013 13:40, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**89**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130415-W1.MSD1, Parent Sample ID: CN130415-W1.MS1

Run in Batch: CN130415-W1, Run Date: 04/15/2013 10:44, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**90**	80	120	**0**	15

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130415-W1.MSD2, Parent Sample ID: CN130415-W1.MS2

Run in Batch: CN130415-W1, Run Date: 04/15/2013 13:42, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**87**	80	120	**2**	15

Inorganics, Prep Batch ID: CN130415-W1 (continued)

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Duplicate (DUP)

Lab Sample ID: CN130415-W1.DP1, Parent Sample ID: S56032.02

Run in Batch: CN130415-W1, Run Date: 04/15/2013 10:40, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Duplicate (DUP)

Lab Sample ID: CN130415-W1.DP2, Parent Sample ID: S56029.01

Run in Batch: CN130415-W1, Run Date: 04/15/2013 13:38, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130415W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX130415W01.LRB1

Run in Batch: OGHEX130415W01, Run Date: 04/15/2013 10:09, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130415W01.LCS1

Run in Batch: OGHEX130415W01, Run Date: 04/15/2013 10:09, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**88**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130415W01.LCS2

Run in Batch: OGHEX130415W01, Run Date: 04/15/2013 10:09, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**86**	78	114

Inorganics, Prep Batch ID: PHS130416

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS130416.LRB1

Run in Batch: PHS130416, Run Date: 04/16/2013 13:09, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS130416.LRB2

Run in Batch: PHS130416, Run Date: 04/16/2013 13:15, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS130416.LCS1

Run in Batch: PHS130416, Run Date: 04/16/2013 13:33, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**94**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS130416.MS1, Parent Sample ID: S56075.01

Run in Batch: PHS130416, Run Date: 04/16/2013 16:34, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**110**	80	120

Duplicate (DUP)

Lab Sample ID: PHS130416.DP1, Parent Sample ID: S55961.11

Run in Batch: PHS130416, Run Date: 04/16/2013 16:30, Prep Date: 04/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**0.7**	20

Inorganics, Prep Batch ID: TSS130412

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130412.LRB1

Run in Batch: TSS130412, Run Date: 04/12/2013 16:45, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130412.LCS1

Run in Batch: TSS130412, Run Date: 04/12/2013 16:45, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**102**	90	110

Duplicate (DUP)

Lab Sample ID: TSS130412.DP1, Parent Sample ID: S56048.01

Run in Batch: TSS130412, Run Date: 04/12/2013 16:45, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**11**	15

Metals, Prep Batch ID: HGD-041513-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0415A.047.LCS

Run in Batch: HG2-13-0415A, Run Date: 04/15/2013 15:04, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**103**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0415A.048.LRB

Run in Batch: HG2-13-0415A, Run Date: 04/15/2013 15:06, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0415A.059.MS, Parent Sample ID: S56013.03

Run in Batch: HG2-13-0415A, Run Date: 04/15/2013 15:29, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**103**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0415A.060.MSD, Parent Sample ID: HG2-13-0415A.059.MS

Run in Batch: HG2-13-0415A, Run Date: 04/15/2013 15:31, Prep Date: 04/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**103**	80	120	**0**	20

Metals, Prep Batch ID: MTD-041213-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT2-13-0412B.020.LCS

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 15:45, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**106**	85	115
Cadmium		**101**	85	115
Chromium		**107**	85	115
Copper		**106**	85	115
Lead		**104**	85	115
Nickel		**106**	85	115
Silver		**101**	85	115
Zinc		**105**	85	115

Blank (BLK)

Lab Sample ID: MT2-13-0412B.021.LRB

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 16:13, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.001	mg/L
Cadmium		**ND**	0.0002	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.001	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0001	mg/L
Zinc		**ND**	0.001	mg/L

Matrix Spike (MS)

Lab Sample ID: MT2-13-0412B.033.MS, Parent Sample ID: S56028.04

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 16:34, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**107**	75	125
Cadmium		**104**	75	125
Chromium		**104**	75	125
Copper		**103**	75	125
Lead		**98**	75	125
Nickel		**103**	75	125
Silver		**98**	75	125
Zinc		**105**	75	125

Matrix Spike (MS)

Lab Sample ID: MT2-13-0412B.046.MS, Parent Sample ID: S56057.05

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 17:06, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**108**	75	125
Cadmium		**108**	75	125
Chromium		**105**	75	125
Copper		**101**	75	125
Lead		**100**	75	125
Nickel		**102**	75	125
Silver		**103**	75	125

Metals, Prep Batch ID: MTD-041213-3 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike (MS) (continued)

Lab Sample ID: MT2-13-0412B.046.MS, Parent Sample ID: S56057.05

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 17:06, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Zinc		**103**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0412B.034.MSD, Parent Sample ID: MT2-13-0412B.033.MS

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 16:36, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**104**	75	125	**3**	20
Cadmium		**106**	75	125	**2**	20
Chromium		**103**	75	125	**0**	20
Copper		**101**	75	125	**2**	20
Lead		**99**	75	125	**1**	20
Nickel		**104**	75	125	**1**	20
Silver		**101**	75	125	**3**	20
Zinc		**104**	75	125	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0412B.047.MSD, Parent Sample ID: MT2-13-0412B.046.MS

Run in Batch: MT2-13-0412B, Run Date: 04/12/2013 17:07, Prep Date: 04/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**102**	75	125	**6**	20
Cadmium		**106**	75	125	**3**	20
Chromium		**103**	75	125	**2**	20
Copper		**98**	75	125	**3**	20
Lead		**98**	75	125	**2**	20
Nickel		**99**	75	125	**3**	20
Silver		**102**	75	125	**0**	20
Zinc		**98**	75	125	**4**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130415W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: b13041604.slcs-w.01

Run in Batch: B130416, Run Date: 04/16/2013 14:27, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
4,4'-DDD		**93.30**	60.0	120.0
4,4'-DDE		**93.50**	60.0	120.0
4,4'-DDT		**90.20**	60.0	120.0
Aldrin		**79.80**	60.0	120.0
Dieldrin		**94.80**	60.0	120.0
Endosulfan I		**94.10**	60.0	120.0
Endosulfan II		**95.90**	60.0	120.0
Endosulfan sulfate		**97.00**	60.0	120.0
Endrin		**99.50**	60.0	120.0
Endrin aldehyde		**85.80**	60.0	120.0
Endrin Ketone		**95.10**	60.0	120.0
Heptachlor		**84.60**	60.0	120.0
Heptachlor epoxide		**92.10**	60.0	120.0
Lindane		**89.80**	60.0	120.0
Methoxychlor		**93.80**	60.0	120.0
a-BHC		**87.20**	60.0	120.0
a-Chlordane		**92.50**	60.0	120.0
b-BHC		**94.40**	60.0	120.0
d-BHC		**95.10**	60.0	120.0
g-Chlordane		**89.10**	60.0	120.0

Laboratory Control Sample (LCS)

Lab Sample ID: f13041507.slcs-w.01

Run in Batch: F130415, Run Date: 04/15/2013 11:19, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**95.16**	50.0	125.0

Blank (BLK)

Lab Sample ID: f13041506.sblk-w.01

Run in Batch: F130415, Run Date: 04/15/2013 11:08, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13041605.slcs-w.01d, Parent Sample ID: b13041604.slcs-w.01

Run in Batch: B130416, Run Date: 04/16/2013 14:44, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
4,4'-DDD		**86.90**	60.0	120.0	**7.1**	20.0
4,4'-DDE		**83.50**	60.0	120.0	**11.3**	20.0
4,4'-DDT		**85.50**	60.0	120.0	**5.4**	20.0

Organics - PCBs/Pesticides, Prep Batch ID: PA130415W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: b13041605.slcs-w.01d, Parent Sample ID: b13041604.slcs-w.01

Run in Batch: B130416, Run Date: 04/16/2013 14:44, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Aldrin		**75.60**	60.0	120.0	**5.4**	20.0
Dieldrin		**87.90**	60.0	120.0	**7.6**	20.0
Endosulfan I		**86.50**	60.0	120.0	**8.5**	20.0
Endosulfan II		**88.20**	60.0	120.0	**8.3**	20.0
Endosulfan sulfate		**89.20**	60.0	120.0	**8.4**	20.0
Endrin		**90.20**	60.0	120.0	**9.8**	20.0
Endrin aldehyde		**83.60**	60.0	120.0	**2.6**	20.0
Endrin Ketone		**87.50**	60.0	120.0	**8.3**	20.0
Heptachlor		**76.10**	60.0	120.0	**10.7**	20.0
Heptachlor epoxide		**84.20**	60.0	120.0	**9.0**	20.0
Lindane		**81.20**	60.0	120.0	**10.0**	20.0
Methoxychlor		**90.20**	60.0	120.0	**3.8**	20.0
a-BHC		**78.20**	60.0	120.0	**10.9**	20.0
a-Chlordane		**84.60**	60.0	120.0	**8.9**	20.0
b-BHC		**85.40**	60.0	120.0	**10.0**	20.0
d-BHC		**85.40**	60.0	120.0	**10.7**	20.0
g-Chlordane		**83.20**	60.0	120.0	**6.9**	20.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13041508.slcs-w.01d, Parent Sample ID: f13041507.slcs-w.01

Run in Batch: F130415, Run Date: 04/15/2013 11:30, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**100.16**	50.0	125.0	**5.1**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130412W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130415.lcsw15b

Run in Batch: Z130415, Run Date: 04/15/2013 14:42, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Chlorophenol		**76.20**	14.0	123.0
4-Nitrophenol		**97.32**	10.0	110.0
Acenaphthene		**72.14**	26.4	118.0
4-Chloro-3-methylphenol		**81.08**	20.8	120.7
1,4-Dichlorobenzene		**66.06**	16.8	110.0
2,4-Dinitrotoluene		**73.32**	24.0	110.0
N-Nitrosodi-n-propylamine		**77.64**	31.3	119.6
Pentachlorophenol		**60.10**	10.0	110.9
Phenol		**76.08**	10.0	110.0
Pyrene		**72.74**	23.0	127.5
1,2,4-Trichlorobenzene		**67.36**	20.5	110.0

Blank (BLK)

Lab Sample ID: z130415.blkw15b

Run in Batch: Z130415, Run Date: 04/15/2013 13:02, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate		**ND**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130412W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z130415.blkw15b

Run in Batch: Z130415, Run Date: 04/15/2013 13:02, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	0.5	ug/l
Pentachlorophenol		**ND**	10	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130415.lcsdw15b, Parent Sample ID: z130415.lcsw15b

Run in Batch: Z130415, Run Date: 04/15/2013 15:16, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Chlorophenol		**72.76**	14.0	123.0	**4.6**	20.0
4-Nitrophenol		**96.58**	10.0	110.0	**0.8**	20.0
Acenaphthene		**70.58**	26.4	118.0	**2.2**	20.0
4-Chloro-3-methylphenol		**78.78**	20.8	120.7	**2.9**	20.0
1,4-Dichlorobenzene		**61.80**	16.8	110.0	**6.7**	20.0
2,4-Dinitrotoluene		**72.14**	24.0	110.0	**1.6**	20.0
N-Nitrosodi-n-propylamine		**74.98**	31.3	119.6	**3.5**	20.0
Pentachlorophenol		**61.06**	10.0	110.9	**1.4**	20.0
Phenol		**73.02**	10.0	110.0	**4.1**	20.0
Pyrene		**70.16**	23.0	127.5	**3.6**	20.0
1,2,4-Trichlorobenzene		**64.22**	20.5	110.0	**4.8**	20.0

Organics - Volatiles, Prep Batch ID: VF130415W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130415b3.lcsw15a

Run in Batch: 130415B3, Run Date: 04/15/2013 18:20, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**95.42**	79.9	124.9
Chlorobenzene		**98.52**	79.2	122.7
1,1-Dichloroethene		**98.58**	69.6	139.4
Trichloroethene		**95.92**	79.7	124.2
Toluene		**96.08**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130415b3.blkw15a

Run in Batch: 130415B3, Run Date: 04/15/2013 21:01, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130415W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130415b3.lcsw15b, Parent Sample ID: 130415b3.lcsw15a

Run in Batch: 130415B3, Run Date: 04/15/2013 18:40, Prep Date: 04/15/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Benzene		**100.26**	79.9	124.9	**4.9**	20.0
Chlorobenzene		**104.40**	79.2	122.7	**5.8**	20.0
1,1-Dichloroethene		**100.80**	69.6	139.4	**2.2**	20.0
Trichloroethene		**102.80**	79.7	124.2	**6.9**	20.0
Toluene		**102.72**	79.8	124.5	**6.7**	20.0

Organics - Volatiles, Prep Batch ID: VF130416W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130416a3.lcsw16a

Run in Batch: 130416A3, Run Date: 04/16/2013 12:10, Prep Date: 04/16/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**104.02**	79.9	124.9
Chlorobenzene		**104.22**	79.2	122.7
1,1-Dichloroethene		**101.82**	69.6	139.4
Trichloroethene		**107.58**	79.7	124.2
Toluene		**106.58**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130416a3.blkw16a

Run in Batch: 130416A3, Run Date: 04/16/2013 14:41, Prep Date: 04/16/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Benzene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130416a3.lcsw16b, Parent Sample ID: 130416a3.lcsw16a

Run in Batch: 130416A3, Run Date: 04/16/2013 12:30, Prep Date: 04/16/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**102.98**	79.9	124.9	**1.0**	20.0
Chlorobenzene		**105.56**	79.2	122.7	**1.3**	20.0
1,1-Dichloroethene		**107.04**	69.6	139.4	**5.0**	20.0
Trichloroethene		**106.14**	79.7	124.2	**1.3**	20.0
Toluene		**106.18**	79.8	124.5	**0.4**	20.0

Organics - Volatiles, Prep Batch ID: VG130412W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130412a4.lcsw12a

Run in Batch: 130412A4, Run Date: 04/12/2013 11:42, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TPH GRO (C6-C12)		**80.54**	58.0	119.0

Blank (BLK)

Lab Sample ID: 130412a4.blkw12a

Run in Batch: 130412A4, Run Date: 04/12/2013 12:37, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TPH GRO (C6-C12)		**ND**	100	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130412a4.lcsw12b, Parent Sample ID: 130412a4.lcsw12a

Run in Batch: 130412A4, Run Date: 04/12/2013 12:00, Prep Date: 04/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TPH GRO (C6-C12)		**83.60**	58.0	119.0	**3.7**	20.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC041113.1

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City State Zip: Brighton, MI	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: D.Newcom, T.Swarthout	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	Ammonia & phosphorus	BOD & Suspended Solids	Oil & Grease	Amenable Cyanide	VOCs TTO	BTEX	SVOCs TTO	TPH GRO (C6-C12)	PCBs	REMARKS
Preservative						D	A	E	B	C	B	B	E	B	E	
# of Containers						1	1	1	1	1	2	2	2	1	2	
Container Information						3	4	10	10	3	1	1	2	10	2	
56057.01 OWS_Effluent_041113	4/11/13	1355		x	w						x			x		2 day TAT
.02 AS_Effluent_041113	4/11/13	1350		x	w										x	Std TAT
.03 GAC_Influent_041113	4/11/13	1345		x	w							x			x	2 day TAT for BTEX, std TAT for PCB
.04 GAC_Midfluent_041113	4/11/13	1340		x	w							x				2 day TAT
.05 GAC_Effluent_041113	4/11/13	1330		x	w		x	x	x	x	x	x		x		x	2 day TAT

PARAMETER ANALYSIS & METHOD

KEYS

Preservation Key:
A. H_2SO_4
B. HCL
C. NaOH
D. HNO_3
E. None
F.
G.
H.

Container Information Key:
1. 40 mL VOA
2. 1 L Amber
3. 125 mL Plastic
4. 250 mL Plastic
5. 500 mL Plastic
6. 1 L Plastic
7. 2 oz. Glass
8. 4 oz. Glass
9. 8 oz. Glass
10. Other

Matrix Key:
SE = Sediment
S= Solids
A = Air
NL = NAPL / Oil
L= Liquid
SW = Surface

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007**

Special QA/QC Instructions (✓): Standard deliverable, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: D.Newcom	Printed Name:	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard TAT	Sample Receipt:	Firm: ARCADIS	Firm: Merit	Firm: Merit
Fed-Ex Tracking #:	Condition/Cooler Temp: 4.8	Date/Time: 4-11-13 1415	Date/Time: 4-11-13 1415	Date/Time: 4-12-13 800

Quality Control Report

Report ID: QC-S56177.01(01)
Generated on 04/29/2013

Report to

Attention: TSwarthout/AKrevinghaus/TMaffeo
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-229-8594 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S56177.01
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 04/23/2013 11:10
Sampled by: DNewcom,TSwarthout
P.O. #: B0064410.2013.0

Report Sections

Cover Page (Page 1)
Analysis Summary (Page 2)
Prep Batch Summary (Page 3)
Surrogates per Lab Sample (Page 4)
Surrogates per QC Sample (Page 5)
Batch QC Results (Page 6)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S56177.01

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (042213)

Collected Date/Time: 04/22/2013 16:00

Matrix: Water

COC Reference: BC042213.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
BTEX, GC/MS	SW8260B	04/23/13 15:41	130423A3	VF130423W2	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF130423W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56177.01	BTEX, GC/MS	SW8260B	04/23/13 15:41	130423A3

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56177.01

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (042213)

Collected Date/Time: 04/22/2013 16:00

Matrix: Water

COC Reference: BC042213.1

Organics - Volatiles, Analysis: BTEX, GC/MS

Run in Batch: 130423A3, Run Date: 04/23/2013 15:41, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.80**	83.0	119.0
1,2-Dichloroethane-D4		**103.80**	77.0	121.0
Toluene-D8		**100.20**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF130423W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130423a3.lcsw23a

Run in Batch: 130423A3, Run Date: 04/23/2013 12:40, Prep Date: 04/23/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**95.40**	83.0	119.0
1,2-Dichloroethane-D4		**111.00**	77.0	121.0
Toluene-D8		**97.00**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130423a3.blkw23a

Run in Batch: 130423A3, Run Date: 04/23/2013 14:21, Prep Date: 04/23/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.60**	83.0	119.0
1,2-Dichloroethane-D4		**110.00**	77.0	121.0
Toluene-D8		**95.00**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130423a3.lcsw23b, Parent Sample ID: 130423a3.lcsw23a

Run in Batch: 130423A3, Run Date: 04/23/2013 13:00, Prep Date: 04/23/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**95.40**	83.0	119.0
1,2-Dichloroethane-D4		**109.80**	77.0	121.0
Toluene-D8		**98.60**	86.0	118.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF130423W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130423a3.lcsw23a

Run in Batch: 130423A3, Run Date: 04/23/2013 12:40, Prep Date: 04/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**106.84**	79.9	124.9
Chlorobenzene		**106.50**	79.2	122.7
1,1-Dichloroethene		**109.90**	69.6	139.4
Trichloroethene		**110.10**	79.7	124.2
Toluene		**107.62**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130423a3.blkw23a

Run in Batch: 130423A3, Run Date: 04/23/2013 14:21, Prep Date: 04/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Benzene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130423a3.lcsw23b, Parent Sample ID: 130423a3.lcsw23a

Run in Batch: 130423A3, Run Date: 04/23/2013 13:00, Prep Date: 04/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**107.44**	79.9	124.9	**0.6**	20.0
Chlorobenzene		**105.00**	79.2	122.7	**1.4**	20.0
1,1-Dichloroethene		**105.98**	69.6	139.4	**3.6**	20.0
Trichloroethene		**111.18**	79.7	124.2	**1.0**	20.0
Toluene		**107.84**	79.8	124.5	**0.2**	20.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

BC042213.1

eCOC ID: ~~BC041113.1~~

Contact & Company Name:	Telephone:	Preservative	B									
Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	810.225.1900											
Address:	Fax:	# of Containers	2									
10559 Citation Drive		Container	1									
City State Zip	Email	PARAMETER ANALYSIS & METHOD										
Brighton, MI	See comments		BTEX									
Project Name/Location (City, State):	Project #:											
Buick City Site # 1295 Task 1500	B0064410.2013.01500											
Sampler's Printed Name:	Sampler's Signature:											
D.Newcom, T.Swarthout												

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix										REMARKS
AOI-09B-GAC-EFF-GRAB01 (042213)	4/22/13	16:00		x	w		x								24hr TAT

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007**

Special QA/QC Instructions (✓): ~~Standard deliverable~~, EDD
LEVEL II

Laboratory Information and Receipt	Relinquished By	Received By	Relinquished By
Lab Name: Merit	Printed Name: T. Swarthout	Printed Name: D.Newcom	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)	Signature:	Signature:	Signature: Tabitha Faust
Specify Turnaround Requirements: 24 hr TAT	Firm: ARCADIS	Firm: ~~Merit~~ ARCADIS	Firm: Merit
Fed-Ex Tracking #:	Date/Time:	Date/Time: 4/23/13 1110	Date/Time: 4/23/13 1110

Quality Control Report

Report ID: QC-S56262.01(01)
Generated on 05/20/2013

Report to

Attention: TSwarthout/AKrevinghaus/TMaffeo/
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-229-8594 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S56262.01-S56262.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 05/01/2013 13:30
Sampled by: DNewcom,TSwarthout
P.O. #: B0064410.2013.0

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-16)
Batch QC Results (Pages 17-30)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S56262.01

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (043013)

Collected Date/Time: 04/30/2013 09:30

Matrix: Water

COC Reference: BC041113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:08	CN130508-W1	CN130508-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01	OGHEX130508W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	05/03/13 15:28	130503A7	VF130503W2	Yes	LCS/BLK/LCSD
Xylenes	E624	05/03/13 15:28	130503A7	VF130503W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S56262.02

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (043013)

Collected Date/Time: 04/30/2013 10:30

Matrix: Water

COC Reference: BC041113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:16	CN130508-W1	CN130508-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01	OGHEX130508W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	05/03/13 15:50	130503A7	VF130503W2	Yes	LCS/BLK/LCSD
Xylenes	E624	05/03/13 15:50	130503A7	VF130503W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S56262.03

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (043013)

Collected Date/Time: 04/30/2013 11:30

Matrix: Water

COC Reference: BC041113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:18	CN130508-W1	CN130508-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01	OGHEX130508W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	05/03/13 16:12	130503A7	VF130503W2	Yes	LCS/BLK/LCSD
Xylenes	E624	05/03/13 16:12	130503A7	VF130503W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S56262.04

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (043013)

Collected Date/Time: 04/30/2013 12:30

Matrix: Water

COC Reference: BC041113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:20	CN130508-W1	CN130508-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01	OGHEX130508W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	05/03/13 16:35	130503A7	VF130503W2	Yes	LCS/BLK/LCSD
Xylenes	E624	05/03/13 16:35	130503A7	VF130503W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S56262.05

Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (043013)

Collected Date/Time: 04/30/2013 13:00

Matrix: Water

COC Reference: BC041113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	05/08/13 13:57	AMN130508	AMN130508	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	05/07/13 13:13	PHS130507	PHS130507	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	05/02/13 18:00	TSS130502	TSS130502	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Cadmium	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Chromium	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Copper	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Lead	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Mercury	E245.1	05/03/13 15:57	HG2-13-0503A	HGD-050313-1	No	LCS/BLK/MS/MSD
Nickel	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Silver	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Zinc	E200.8	05/16/13 16:06	MT2-13-0516A	MTD-051613-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	05/06/13 12:33	A130506	PA130506W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	05/10/13 15:20	Z130510	SF130507W01	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130508

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	Ammonia-N (Undistilled)	4500-NH3 D	05/08/13 13:57	AMN130508

Inorganics, Prep Batch ID: CN130508-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.01	Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:08	CN130508-W1
S56262.02	Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:16	CN130508-W1
S56262.03	Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:18	CN130508-W1
S56262.04	Amenable Cyanide	335.4/4500-CN-G	05/08/13 12:20	CN130508-W1

Inorganics, Prep Batch ID: OGHEX130508W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.01	Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01
S56262.02	Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01
S56262.03	Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01
S56262.04	Oil & Grease n-Hexane Extract.	1664A	05/08/13 12:23	OGHEX130508W01

Inorganics, Prep Batch ID: PHS130507

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	Total Phosphorus	4500-PE	05/07/13 13:13	PHS130507

Inorganics, Prep Batch ID: TSS130502

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	Total Suspended Solids	2540 D	05/02/13 18:00	TSS130502

Metals, Prep Batch ID: HGD-050313-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	Mercury	E245.1	05/03/13 15:57	HG2-13-0503A

Metals, Prep Batch ID: MTD-051613-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	Arsenic	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Cadmium	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Chromium	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Copper	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Lead	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Nickel	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Silver	E200.8	05/16/13 16:06	MT2-13-0516A
S56262.05	Zinc	E200.8	05/16/13 16:06	MT2-13-0516A

Organics - PCBs/Pesticides, Prep Batch ID: PA130506W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	PCB	E608	05/06/13 12:33	A130506

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF130507W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.05	SVOCs, TTO List	E625M	05/10/13 15:20	Z130510

Organics - Volatiles, Prep Batch ID: VF130503W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56262.01	VOCs, TTO List	E624	05/03/13 15:28	130503A7
S56262.01	Xylenes	E624	05/03/13 15:28	130503A7
S56262.02	VOCs, TTO List	E624	05/03/13 15:50	130503A7
S56262.02	Xylenes	E624	05/03/13 15:50	130503A7
S56262.03	VOCs, TTO List	E624	05/03/13 16:12	130503A7
S56262.03	Xylenes	E624	05/03/13 16:12	130503A7
S56262.04	VOCs, TTO List	E624	05/03/13 16:35	130503A7
S56262.04	Xylenes	E624	05/03/13 16:35	130503A7

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56262.01

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (043013)

Collected Date/Time: 04/30/2013 09:30

Matrix: Water

COC Reference: BC041113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130503A7, Run Date: 05/03/2013 15:28, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.80**	83.0	119.0
1,2-Dichloroethane-D4		**95.80**	77.0	121.0
Toluene-D8		**96.20**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56262.02

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (043013)

Collected Date/Time: 04/30/2013 10:30

Matrix: Water

COC Reference: BC041113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130503A7, Run Date: 05/03/2013 15:50, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**99.00**	77.0	121.0
Toluene-D8		**98.20**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56262.03

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (043013)

Collected Date/Time: 04/30/2013 11:30

Matrix: Water

COC Reference: BC041113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130503A7, Run Date: 05/03/2013 16:12, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**94.60**	83.0	119.0
1,2-Dichloroethane-D4		**95.00**	77.0	121.0
Toluene-D8		**97.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56262.04

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (043013)

Collected Date/Time: 04/30/2013 12:30

Matrix: Water

COC Reference: BC041113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130503A7, Run Date: 05/03/2013 16:35, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.00**	83.0	119.0
1,2-Dichloroethane-D4		**97.00**	77.0	121.0
Toluene-D8		**95.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56262.05

Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (043013)

Collected Date/Time: 04/30/2013 13:00

Matrix: Water

COC Reference: BC041113.1

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: A130506, Run Date: 05/06/2013 12:33, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**68.00**	34.1	137.1
DCBP		**75.60**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z130510, Run Date: 05/10/2013 15:20, Matrix: WW, Dilution: 20

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol	W	**53.10**	10.0	110.0
2-Fluorobiphenyl	W	**78.50**	10.0	116.0
Nitrobenzene-D5	W	**77.80**	10.0	114.0
Phenol-D5	W	**50.00**	10.0	110.0
2,4,6-Tribromophenol	W	**81.00**	10.0	123.0
Terphenyl-D14	W	**94.70**	10.0	141.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130506W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13050607.slcs-w.01

Run in Batch: A130506, Run Date: 05/06/2013 12:05, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**75.50**	34.1	137.1
DCBP		**69.60**	30.0	138.6

Laboratory Control Sample (LCS)

Lab Sample ID: b13050704.slcs-w.01

Run in Batch: B130507, Run Date: 05/07/2013 13:13, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**113.30**	34.1	137.1
DCBP		**125.90**	30.0	138.6

Blank (BLK)

Lab Sample ID: a13050606.sblk-w.01

Run in Batch: A130506, Run Date: 05/06/2013 11:55, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**97.30**	34.1	137.1
DCBP		**94.50**	30.0	138.6

Blank (BLK)

Lab Sample ID: b13050706.sblk-w.01

Run in Batch: B130507, Run Date: 05/07/2013 14:00, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**110.70**	34.1	137.1
DCBP		**115.40**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13050608.slcs-w.01d, Parent Sample ID: a13050607.slcs-w.01

Run in Batch: A130506, Run Date: 05/06/2013 12:16, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**74.30**	34.1	137.1
DCBP		**80.80**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13050705.slcs-w.01d, Parent Sample ID: b13050704.slcs-w.01

Run in Batch: B130507, Run Date: 05/07/2013 13:41, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**113.60**	34.1	137.1
DCBP		**123.50**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF130507W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130510.lcsw10a

Run in Batch: Z130510, Run Date: 05/10/2013 14:12, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**61.10**	10.0	110.0
2-Fluorobiphenyl		**75.40**	10.0	116.0
Nitrobenzene-D5		**72.00**	10.0	114.0
Phenol-D5		**67.00**	10.0	110.0
2,4,6-Tribromophenol		**73.10**	10.0	123.0
Terphenyl-D14		**73.30**	10.0	141.0

Blank (BLK)

Lab Sample ID: z130510.blkw10a

Run in Batch: Z130510, Run Date: 05/10/2013 13:38, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**55.60**	10.0	110.0
2-Fluorobiphenyl		**70.70**	10.0	116.0
Nitrobenzene-D5		**67.00**	10.0	114.0
Phenol-D5		**61.70**	10.0	110.0
2,4,6-Tribromophenol		**69.60**	10.0	123.0
Terphenyl-D14		**70.70**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130510.lcsdw10a, Parent Sample ID: z130510.lcsw10a

Run in Batch: Z130510, Run Date: 05/10/2013 14:46, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**72.20**	10.0	110.0
2-Fluorobiphenyl		**89.70**	10.0	116.0
Nitrobenzene-D5		**83.10**	10.0	114.0
Phenol-D5		**78.50**	10.0	110.0
2,4,6-Tribromophenol		**81.80**	10.0	123.0
Terphenyl-D14		**81.40**	10.0	141.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF130503W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130503a7.lcsw03a

Run in Batch: 130503A7, Run Date: 05/03/2013 12:06, Prep Date: 05/03/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.00**	83.0	119.0
1,2-Dichloroethane-D4		**99.60**	77.0	121.0
Toluene-D8		**101.20**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130503a7.blkw03a

Run in Batch: 130503A7, Run Date: 05/03/2013 13:58, Prep Date: 05/03/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**93.60**	77.0	121.0
Toluene-D8		**97.80**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130503a7.lcsw03b, Parent Sample ID: 130503a7.lcsw03a

Run in Batch: 130503A7, Run Date: 05/03/2013 12:28, Prep Date: 05/03/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.80**	83.0	119.0
1,2-Dichloroethane-D4		**96.60**	77.0	121.0
Toluene-D8		**101.00**	86.0	118.0

Inorganics, Prep Batch ID: AMN130508

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130508.LRB1

Run in Batch: AMN130508, Run Date: 05/08/2013 11:35, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130508.LCS1

Run in Batch: AMN130508, Run Date: 05/08/2013 12:18, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**97**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130508.MS1, Parent Sample ID: S56237.01

Run in Batch: AMN130508, Run Date: 05/08/2013 13:18, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**101**	80	120

Matrix Spike (MS)

Lab Sample ID: AMN130508.MS2, Parent Sample ID: S56349.01

Run in Batch: AMN130508, Run Date: 05/08/2013 16:23, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**109**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130508.DP1, Parent Sample ID: S56244.01

Run in Batch: AMN130508, Run Date: 05/08/2013 13:30, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**4.1**	20

Duplicate (DUP)

Lab Sample ID: AMN130508.DP2, Parent Sample ID: S56349.01

Run in Batch: AMN130508, Run Date: 05/08/2013 16:21, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**0.1**	20

Inorganics, Prep Batch ID: CN130508-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130508-W1.LRB1

Run in Batch: CN130508-W1, Run Date: 05/08/2013 12:00, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130508-W1.LCS1

Run in Batch: CN130508-W1, Run Date: 05/08/2013 12:06, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**101**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130508-W1.MS1, Parent Sample ID: S56262.01

Run in Batch: CN130508-W1, Run Date: 05/08/2013 12:12, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**96**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130508-W1.MSD1, Parent Sample ID: CN130508-W1.MS1

Run in Batch: CN130508-W1, Run Date: 05/08/2013 12:14, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**94**	80	120	**2**	15

Duplicate (DUP)

Lab Sample ID: CN130508-W1.DP1, Parent Sample ID: S56262.01

Run in Batch: CN130508-W1, Run Date: 05/08/2013 12:10, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130508W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX130508W01.LRB1

Run in Batch: OGHEX130508W01, Run Date: 05/08/2013 12:24, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130508W01.LCS1

Run in Batch: OGHEX130508W01, Run Date: 05/08/2013 12:24, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**86**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130508W01.LCS2

Run in Batch: OGHEX130508W01, Run Date: 05/08/2013 12:24, Prep Date: 05/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**90**	78	114

Inorganics, Prep Batch ID: PHS130507

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS130507.LRB1

Run in Batch: PHS130507, Run Date: 05/07/2013 12:45, Prep Date: 05/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS130507.LRB2

Run in Batch: PHS130507, Run Date: 05/07/2013 12:51, Prep Date: 05/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS130507.LCS1

Run in Batch: PHS130507, Run Date: 05/07/2013 12:57, Prep Date: 05/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**93**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS130507.MS1, Parent Sample ID: S56278.01

Run in Batch: PHS130507, Run Date: 05/07/2013 18:44, Prep Date: 05/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**93**	80	120

Duplicate (DUP)

Lab Sample ID: PHS130507.DP1, Parent Sample ID: S56237.01

Run in Batch: PHS130507, Run Date: 05/07/2013 18:39, Prep Date: 05/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**10.4**	20

Inorganics, Prep Batch ID: TSS130502

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130502.LRB1

Run in Batch: TSS130502, Run Date: 05/02/2013 18:00, Prep Date: 05/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130502.LCS1

Run in Batch: TSS130502, Run Date: 05/02/2013 18:00, Prep Date: 05/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**108**	90	110

Duplicate (DUP)

Lab Sample ID: TSS130502.DP1, Parent Sample ID: S56280.01

Run in Batch: TSS130502, Run Date: 05/02/2013 18:00, Prep Date: 05/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids	*	**22**	15

Metals, Prep Batch ID: HGD-050313-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0503A.015.LCS

Run in Batch: HG2-13-0503A, Run Date: 05/03/2013 15:36, Prep Date: 05/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**102**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0503A.016.LRB

Run in Batch: HG2-13-0503A, Run Date: 05/03/2013 15:38, Prep Date: 05/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0503A.027.MS, Parent Sample ID: S56262.05

Run in Batch: HG2-13-0503A, Run Date: 05/03/2013 15:59, Prep Date: 05/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**101**	80	120

Matrix Spike (MS)

Lab Sample ID: HG2-13-0503A.037.MS, Parent Sample ID: S56292.08

Run in Batch: HG2-13-0503A, Run Date: 05/03/2013 16:19, Prep Date: 05/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**101**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0503A.028.MSD, Parent Sample ID: HG2-13-0503A.027.MS

Run in Batch: HG2-13-0503A, Run Date: 05/03/2013 16:01, Prep Date: 05/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**100**	80	120	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0503A.038.MSD, Parent Sample ID: HG2-13-0503A.037.MS

Run in Batch: HG2-13-0503A, Run Date: 05/03/2013 16:21, Prep Date: 05/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**102**	80	120	**0**	20

Metals, Prep Batch ID: MTD-051613-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT2-13-0516A.017.LCS

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 15:17, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**102**	85	115
Cadmium		**99**	85	115
Chromium		**100**	85	115
Copper		**103**	85	115
Lead		**102**	85	115
Nickel		**104**	85	115
Silver		**98**	85	115
Zinc		**101**	85	115

Blank (BLK)

Lab Sample ID: MT2-13-0516A.018.LRB

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 15:22, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.001	mg/L
Cadmium		**ND**	0.0002	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.001	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0005	mg/L
Zinc		**ND**	0.001	mg/L

Matrix Spike (MS)

Lab Sample ID: MT2-13-0516A.030.MS, Parent Sample ID: S56341.03

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 16:43, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**104**	75	125
Cadmium		**104**	75	125
Chromium		**96**	75	125
Copper		**97**	75	125
Lead		**99**	75	125
Nickel		**99**	75	125
Silver		**94**	75	125
Zinc		**104**	75	125

Matrix Spike (MS)

Lab Sample ID: MT2-13-0516A.043.MS, Parent Sample ID: S56362.01

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 17:52, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**100**	75	125
Cadmium		**104**	75	125
Chromium		**97**	75	125
Copper		**96**	75	125
Lead		**96**	75	125
Nickel		**99**	75	125
Silver		**98**	75	125

Metals, Prep Batch ID: MTD-051613-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike (MS) (continued)

Lab Sample ID: MT2-13-0516A.043.MS, Parent Sample ID: S56362.01

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 17:52, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Zinc		**102**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0516A.031.MSD, Parent Sample ID: MT2-13-0516A.030.MS

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 16:46, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**105**	75	125	**1**	20
Cadmium		**104**	75	125	**1**	20
Chromium		**96**	75	125	**0**	20
Copper		**100**	75	125	**3**	20
Lead		**100**	75	125	**1**	20
Nickel		**99**	75	125	**0**	20
Silver		**96**	75	125	**2**	20
Zinc		**106**	75	125	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0516A.044.MSD, Parent Sample ID: MT2-13-0516A.043.MS

Run in Batch: MT2-13-0516A, Run Date: 05/16/2013 17:54, Prep Date: 05/16/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**97**	75	125	**3**	20
Cadmium		**104**	75	125	**0**	20
Chromium		**96**	75	125	**1**	20
Copper		**93**	75	125	**3**	20
Lead		**98**	75	125	**2**	20
Nickel		**96**	75	125	**3**	20
Silver		**99**	75	125	**1**	20
Zinc		**100**	75	125	**1**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130506W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13050607.slcs-w.01

Run in Batch: A130506, Run Date: 05/06/2013 12:05, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**101.00**	50.0	125.0

Laboratory Control Sample (LCS)

Lab Sample ID: b13050704.slcs-w.01

Run in Batch: B130507, Run Date: 05/07/2013 13:13, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
4,4'-DDD		**103.00**	60.0	120.0
4,4'-DDE		**90.40**	60.0	120.0
4,4'-DDT		**98.80**	60.0	120.0
Aldrin		**82.90**	60.0	120.0
Dieldrin		**97.90**	60.0	120.0
Endosulfan I		**92.20**	60.0	120.0
Endosulfan II		**95.60**	60.0	120.0
Endosulfan sulfate		**95.40**	60.0	120.0
Endrin		**98.70**	60.0	120.0
Endrin aldehyde		**95.80**	60.0	120.0
Endrin Ketone		**99.40**	60.0	120.0
Heptachlor		**87.20**	60.0	120.0
Heptachlor epoxide		**95.30**	60.0	120.0
Lindane		**87.40**	60.0	120.0
Methoxychlor		**103.10**	60.0	120.0
a-BHC		**83.90**	60.0	120.0
a-Chlordane		**92.90**	60.0	120.0
b-BHC		**100.00**	60.0	120.0
d-BHC		**95.30**	60.0	120.0
g-Chlordane		**88.60**	60.0	120.0

Blank (BLK)

Lab Sample ID: a13050606.sblk-w.01

Run in Batch: A130506, Run Date: 05/06/2013 11:55, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13050608.slcs-w.01d, Parent Sample ID: a13050607.slcs-w.01

Run in Batch: A130506, Run Date: 05/06/2013 12:16, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**103.66**	50.0	125.0	**2.6**	20.0

Organics - PCBs/Pesticides, Prep Batch ID: PA130506W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13050705.slcs-w.01d, Parent Sample ID: b13050704.slcs-w.01

Run in Batch: B130507, Run Date: 05/07/2013 13:41, Prep Date: 05/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
4,4'-DDD		**100.80**	60.0	120.0	**2.2**	20.0
4,4'-DDE		**90.20**	60.0	120.0	**0.2**	20.0
4,4'-DDT		**101.50**	60.0	120.0	**2.6**	20.0
Aldrin		**83.10**	60.0	120.0	**0.3**	20.0
Dieldrin		**100.70**	60.0	120.0	**2.8**	20.0
Endosulfan I		**93.10**	60.0	120.0	**1.0**	20.0
Endosulfan II		**95.60**	60.0	120.0	**0.0**	20.0
Endosulfan sulfate		**94.10**	60.0	120.0	**1.4**	20.0
Endrin		**100.10**	60.0	120.0	**1.4**	20.0
Endrin aldehyde		**96.20**	60.0	120.0	**0.4**	20.0
Endrin Ketone		**99.00**	60.0	120.0	**0.4**	20.0
Heptachlor		**87.40**	60.0	120.0	**0.3**	20.0
Heptachlor epoxide		**93.20**	60.0	120.0	**2.2**	20.0
Lindane		**87.30**	60.0	120.0	**0.1**	20.0
Methoxychlor		**109.80**	60.0	120.0	**6.3**	20.0
a-BHC		**84.10**	60.0	120.0	**0.2**	20.0
a-Chlordane		**93.60**	60.0	120.0	**0.7**	20.0
b-BHC		**95.80**	60.0	120.0	**4.4**	20.0
d-BHC		**93.50**	60.0	120.0	**1.9**	20.0
g-Chlordane		**89.10**	60.0	120.0	**0.5**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130507W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130510.lcsw10a

Run in Batch: Z130510, Run Date: 05/10/2013 14:12, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Chlorophenol		**60.98**	14.0	123.0
4-Nitrophenol		**62.08**	10.0	110.0
Acenaphthene		**63.12**	26.4	118.0
4-Chloro-3-methylphenol		**67.84**	20.8	120.7
1,4-Dichlorobenzene		**58.36**	16.8	110.0
2,4-Dinitrotoluene		**72.22**	24.0	110.0
N-Nitrosodi-n-propylamine		**67.24**	31.3	119.6
Pentachlorophenol		**66.26**	10.0	110.9
Phenol		**60.52**	10.0	110.0
Pyrene		**67.68**	23.0	127.5
1,2,4-Trichlorobenzene		**59.28**	20.5	110.0

Blank (BLK)

Lab Sample ID: z130510.blkw10a

Run in Batch: Z130510, Run Date: 05/10/2013 13:38, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate	*	**0.6**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate	*	**0.6**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate		**ND**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130507W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z130510.blkw10a

Run in Batch: Z130510, Run Date: 05/10/2013 13:38, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	0.5	ug/l
Pentachlorophenol		**ND**	0.5	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130510.lcsdw10a, Parent Sample ID: z130510.lcsw10a

Run in Batch: Z130510, Run Date: 05/10/2013 14:46, Prep Date: 05/07/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Chlorophenol		**69.26**	14.0	123.0	**12.7**	20.0
4-Nitrophenol		**64.90**	10.0	110.0	**4.4**	20.0
Acenaphthene		**69.88**	26.4	118.0	**10.2**	20.0
4-Chloro-3-methylphenol		**74.30**	20.8	120.7	**9.1**	20.0
1,4-Dichlorobenzene		**65.24**	16.8	110.0	**11.1**	20.0
2,4-Dinitrotoluene		**78.34**	24.0	110.0	**8.1**	20.0
N-Nitrosodi-n-propylamine		**75.82**	31.3	119.6	**12.0**	20.0
Pentachlorophenol		**71.92**	10.0	110.9	**8.2**	20.0
Phenol		**68.86**	10.0	110.0	**12.9**	20.0
Pyrene		**72.42**	23.0	127.5	**6.8**	20.0
1,2,4-Trichlorobenzene		**66.38**	20.5	110.0	**11.3**	20.0

Organics - Volatiles, Prep Batch ID: VF130503W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130503a7.lcsw03a

Run in Batch: 130503A7, Run Date: 05/03/2013 12:06, Prep Date: 05/03/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**109.88**	79.9	124.9
Chlorobenzene		**106.30**	79.2	122.7
1,1-Dichloroethene		**114.94**	69.6	139.4
Trichloroethene		**109.58**	79.7	124.2
Toluene		**110.66**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130503a7.blkw03a

Run in Batch: 130503A7, Run Date: 05/03/2013 13:58, Prep Date: 05/03/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130503W2 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130503a7.lcsw03b, Parent Sample ID: 130503a7.lcsw03a

Run in Batch: 130503A7, Run Date: 05/03/2013 12:28, Prep Date: 05/03/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Benzene		**107.18**	79.9	124.9	**2.5**	20.0
Chlorobenzene		**104.28**	79.2	122.7	**1.9**	20.0
1,1-Dichloroethene		**109.28**	69.6	139.4	**5.0**	20.0
Trichloroethene		**107.30**	79.7	124.2	**2.1**	20.0
Toluene		**109.22**	79.8	124.5	**1.3**	20.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC041113.1

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City State Zip: Brighton, MI	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: D.Newcom, T.Swarthout	Sampler's Signature:

						D	A	E	B	C	B	E	E		
						1	1	1	1	1	3	2	2		
						3	4	10	10	3	1	2	2		
						6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes	625 SVOCs TTO	608 PCBs		
															REMARKS
.01	AOI-09B-GAC-EFF-GRAB01 (043013)	4/30/2013	9:30		x	w				x	x	x			Standard 2 wk TAT
.02	AOI-09B-GAC-EFF-GRAB02 (043013)	4/30/2013	10:30		x	w				x	x	x			Standard 2 wk TAT
.03	AOI-09B-GAC-EFF-GRAB03 (043013)	4/30/2013	11:30		x	w				x	x	x			Standard 2 wk TAT
.04	AOI-09B-GAC-EFF-GRAB04 (043013)	4/30/2013	12:30		x	w				x	x	x			Standard 2 wk TAT
.05	AOI-09B-GAC-EFF-COMPOSIT (043013)	4/30/2013	13:00	x		w		x	x	x				x	x		Standard 2 wk TAT

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please Cc Erin Kozak on sample reciept**

Special QA/QC Instructions (✓): Level II, EDD

Lab Name: Merit	Printed Name: Trevor Swarthout	Printed Name: Tim Gross	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)	Signature:	Signature:	Signature: Tabitha Faust
Specify Turnaround Requirements: See Remarks	Firm: ARCADIS	Firm: Merit	Firm: Merit
Fed-Ex Tracking #:	Date/Time: 5.1.13 1200	Date/Time: 5/1/13 1200	Date/Time: 5/1/13 1330

ARCADIS

Attachment 3

Notices of Exceedance

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

Environment

Tom Hutchings
Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road
Flint, Michigan 48532

Subject:
Exceedance Notice
RACER Buick City System
Sewer Use Permit #2-02-RBC001

Date:
April 30, 2013

Contact:
Tony Maffeo

Phone:
248.994.2272

Email:
tony.maffeo@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear Mr. Hutchings:

Per our discussion on April 19th and April 26th regarding the RACER Buick City Sanitary Use Permit #2-02-RBC001, please find the following information regarding a known discharge in exceedance of the daily maximum allowance:

Date/time the sample was collected

- A sample was collected from the system discharge on April 11 at 1:30 PM and submitted for laboratory analysis of:
  - Total arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc;
  - Ammonia and phosphates;
  - BOD and suspended solids;
  - Oil and Grease;
  - VOCs TTO;
  - SVOC TTO; and
  - PCBs.
- This sample was not collected as part of the monthly sampling event. It was a grab sample collected of the system effluent to confirm detections as part of the system startup/shakedown process.

Volume of Water Discharged:

- Approximately 24,200 gallons were discharged between the time of sample collection and the system shut down.

Duration of Discharge:

- The system continued to operate from the time the sample was collected to 9:56 PM on April 12. The system was shut down over the weekend and began operation again at 11:00 AM on April 15 and was shut down again at 19:49 PM on April 16.

Constituents of Concern and Concentrations:

- Ethylbenzene(0.160 mg/L);
- Xylenes (total) (0.600 mg/L);
- Laboratory analytical is attached.

Exceedance Possible Cause:

- Operation of the AOI 09-B system was initiated on April 9, 2013. The system is currently undergoing startup/shakedown where the system operation is balanced and optimized. It is thought that the Granular Activated Carbon (GAC) was overloaded while attempting to balance the system.

Actions:

- The system was shut down on April 16 due to an alarm and upon identification of the exceedance on April 17, the system operator was informed not to restart.
- The analytical data and system operation are being reviewed to identify the potential causes of the GAC overload prior to restarting the system.
- A GAC changeout was performed on April 18, 2013.

Time the Exceedance was Identified:

- Analytical data was received on April 17 at 6:28 PM.
- The data was reviewed and the exceedance was identified at approximately 9:00 AM on April 18.
- Xylenes was requested on April 26th and received the same day. The exceedance was identified at approximately 12:00 PM on April 26th.

Time the Exceedance Orally Reported to the City:

- An initial message was left with Tom Hutchings at 5:20 PM on April 18.
- The issue was discussed via telephone conversation with Tom Hutchings at 8:10 AM on April 19.
- The xylenes exceedance was discussed via e-mail submitted at 2:48 PM on April 26th.

On April 22 the system was restarted and a grab sample of the effluent was collected for BTEX. The system was shut down until the laboratory results were received. The results of that analytical are attached indicating that the discharge is compliance with the permit requirements.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Please let me know if you have any questions or concerns.

Sincerely,

ARCADIS G&M of Michigan, LLC

Tony Maffeo
Construction Manager

ARCADIS G&M of Michigan, LLC



Chris Peters
Construction Manager

Copies:
Grant Trigger, RACER Trust Cleanup Manager - Manager
File

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
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Novi
Michigan 48377
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www.arcadis-us.com

Environment

Tom Hutchings
Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road
Flint, Michigan 48532

Subject:
Exceedance Notice
RACER Buick City System
Sewer Use Permit #2-02-RBC001

Date:
May 21, 2013

Contact:
Edward Cote

Phone:
248.994.2295

Email:
Edward.Cote@arcadis-us.com

Our ref:
B0064410.2013.01500

Dear Mr. Hutchings:

Regarding the RACER Buick City Sanitary Use Permit #2-02-RBC001, please find the following information regarding a known discharge in exceedance of the daily maximum allowance for zinc. Please note that the system is currently in the startup and system adjustments are underway.

Date/time the sample was collected:

- A sample was collected from the system discharge on April 30 at 1:00 PM and submitted for laboratory analysis of:
  - Total arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc;
  - Ammonia and phosphates;
  - BOD and suspended solids;
  - Oil and Grease;
  - VOCs TTO;
  - SVOC TTO; and
  - PCBs.
- This sample was collected as part of the monthly sampling event.

Volume of Water Discharged:

- Approximately 62,309 gallons were discharged between the time of sample collection and the known discharge in exceedance of the daily maximum allowance.

Duration of Discharge:

- The system continued to operate from the time the sample was collected to 4:26 PM on May 1, 2013. The system was restarted at 5:42 PM May 1, 2013. The system ran on and off from May 1, 2013 to the time of notice for exceedances on May 17, 2013 for roughly 193 hours and continues to operate.

Constituents of Concern and Concentrations:

- Zinc (total) (0.492 mg/L);
- Laboratory analytical is attached.

Exceedance Possible Cause:

- Operation of the AOI 09-B system was initiated on April 9, 2013. The system is currently undergoing startup/shakedown where the system operation is balanced and optimized. It is thought that, as the system has begun to generate silt accumulation within the 25micron bag filters, metals potentially adsorbed to fine silt particles that subsequently passed through the filters in the effluent stream.

Actions:

- The system was left operational on May 17, 2013. Smaller micron bag filters were put in place on May 17, 2013 at approximately 4:00 PM.
- The analytical data and system operation are being reviewed to identify the potential causes of the effluent groundwater exceedance.

Time the Exceedance was identified:

- Analytical data was received on May 17, 2013 at 1:16 PM.
- The data was reviewed and the exceedance was identified at approximately 1:45 PM on May 17, 2013.

Time the Exceedance Orally Reported to the City:

- An initial message was left with Tom Hutchings at 2:40 PM on May 17, 2013. A telephone conversation of the exceedance was discussed Monday, May 20 at 8:45.

Future system sampling is planned for the week of May 27th. Results will be used to indicate whether the discharge is in compliance with the permit requirements.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Please let me know if you have any questions or concerns.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward Cote, P.E.
Principle Engineer

ARCADIS G&M of Michigan, LLC



Christopher S. Peters, PG
Vice President

ARCADIS G&M of Michigan, LLC

Copies:
Grant Trigger, RACER Trust Cleanup Manager - Manager
File

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Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
May 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

ENVIRONMENT

Date:
June 27, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during May 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of May 2013, 13,750.20 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1).

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on May 31, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E624M,
- total mercury according to USEPA Method EPA 245.1, and
- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured),
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Due to time limitations and system operational issues for this monthly sample, the composite sample was collected over a 6 hour period. Earlier attempts were made to collect the sample but power loss and operational alarms had prevented a full 24 hour composite from being collected. When it was identified the 24 hour time period would not be achievable, the City of Flint was contacted and a shortened collection time was deemed more favorable than attempting another 24 hour period pushing into June. Also, do to timing limitation the composite sample was not submitted within the hold time limit for the Biochemical Oxygen Demand (BOD). This sample was collected in accordance with all other requirements of the composite sample.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on May 31, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.2	13,749.30

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.02	<	1	0.02	0.01	2	1	0.018	0.002	<	0.0005	<	0.005	<	0.004	<	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	6/5/2013		6/10/2013		6/10/2013		6/6/2013		6/12/2013		6/12/2012		6/12/2013		6/12/2013		6/12/2013	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		0.02		2		0.018		<		<		<		<	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	<	0.005	<	0.0005	0.085	0.005	8.0		<	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	6/4/2013		6/12/2013		6/12/2013		6/12/2013		5/31/2013		6/4/2013		6/10/2013		6/10/2013		6/10/2013	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.8		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		5/31/2013		6/4/2013		6/10/2013		6/10/2013		6/10/2013	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.7		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		5/31/2013		6/4/2013		6/10/2013		6/10/2013		6/10/2013	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.7		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		Field Test		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		5/31/2013		6/4/2013		6/10/2013		6/10/2013		6/10/2013	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		<		0.085		7.8		<		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.001	<	Varies	< (bis(2-Ethylhexyl)phthalate	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	6/10/2013		6/10/2013		6/10/2013		6/7/2013		6/4/2013	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	6/10/2013		6/10/2013		6/10/2013		NA		NA	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	6/10/2013		6/10/2013		6/10/2013		NA		NA	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	6/10/2013		6/10/2013		6/10/2013		NA		NA	
Sample Date	5/31/2013		5/31/2013		5/31/2013		5/31/2013		5/31/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		<		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Supplemental Report

Report ID: S56672.01(02)
Generated on 06/17/2013
Replaces report S56672.01(01) generated on 06/13/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Trevor Swarthout, Erin Kozak

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S56672.01-S56672.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 05/31/2013
Submitted Date/Time: 06/03/2013 14:15
Sampled by: B Lawrence
P.O. #: B0064410.2013.01500

Report split up by COC per client request

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56672.01	AOI-09B-GAC-EFF-COMPOSIT (053113)	Water	05/31/2013 16:40
S56672.02	AOI-09B-GAC-EFF-GRAB01 (053113)	Water	05/31/2013 13:15
S56672.03	AOI-09B-GAC-EFF-GRAB02 (053113)	Water	05/31/2013 13:30
S56672.04	AOI-09B-GAC-EFF-GRAB03 (053113)	Water	05/31/2013 13:45
S56672.05	AOI-09B-GAC-EFF-GRAB04 (053113)	Water	05/31/2013 14:00

Lab Sample ID: S56672.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (053113)
Collected Date/Time: 05/31/2013 16:40
Matrix: Water
COC Reference: BC053113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	250ml Plastic	H2SO4	Yes	5.2	IR
1	1L Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
4	1L Amber	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	06/05/13 21:32	EMR		
Extraction, PCB	Completed			3510C	06/04/13 11:33	ADB		
Mercury Digestion	Completed			E245.1	06/04/13 11:45	CCM		
Metal Digestion	Completed			3015A	06/12/13 12:00	PER		
Inorganics								
Ammonia-N (Undistilled)	Not detected	mg/L	0.02	4500-NH3 D	06/05/13 15:42	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	06/05/13 09:35	BJB		H
TBOD5	Not detected	mg/L	1	10360	06/10/13 09:45	ASB		H
Total Phosphorus	0.02	mg/L	0.01	4500-PE	06/07/13 10:23	MJC	7723-14-0	
Total Suspended Solids	2	mg/L	1	2540 D	06/06/13 17:30	ASB		
Metals								
Arsenic	0.018	mg/L	0.002	E200.8	06/12/13 15:32	PER	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	06/12/13 15:32	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	06/12/13 15:32	PER	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	06/12/13 15:32	PER	7440-50-8	
Lead	Not detected	mg/L	0.003	E200.8	06/12/13 15:32	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	06/04/13 15:14	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	06/12/13 15:32	PER	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	06/12/13 15:32	PER	7440-22-4	
Zinc	0.085	mg/L	0.005	E200.8	06/12/13 15:32	PER	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	06/04/13 14:09	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	120-12-7	

H-Sample submitted and run outside of holding time

Lab Sample ID: S56672.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (053113)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzidine	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	92-87-5	
Benzo(a)anthracene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	120-82-1	

Lab Sample ID: S56672.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (053113)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	88-06-2	
Phenanthrene	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	06/07/13 14:50	PL	01746-01-6	

Lab Sample ID: S56672.02
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (053113)
Collected Date/Time: 05/31/2013 13:15
Matrix: Water
COC Reference: BC053113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.2	IR
1	125ml Plastic	NaOH	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	06/11/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	06/10/13 12:08	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	06/04/13 12:37	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	06/10/13 18:12	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	06/10/13 18:12	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56672.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (053113)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	06/10/13 18:12	WAT		
o-Xylene	Not detected	ug/L	1	E624	06/10/13 18:12	WAT	95-47-6	

Lab Sample ID: S56672.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (053113)
Collected Date/Time: 05/31/2013 13:30
Matrix: Water
COC Reference: BC053113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.2	IR
1	125ml Plastic	NaOH	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	06/11/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	06/10/13 12:16	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	06/04/13 12:37	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	06/10/13 18:33	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	06/10/13 18:33	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56672.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (053113)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	06/10/13 18:33	WAT		
o-Xylene	Not detected	ug/L	1	E624	06/10/13 18:33	WAT	95-47-6	

Lab Sample ID: S56672.04
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (053113)
Collected Date/Time: 05/31/2013 13:45
Matrix: Water
COC Reference: BC053113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.2	IR
1	125ml Plastic	NaOH	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	06/11/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	06/10/13 12:18	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	06/04/13 12:37	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	06/10/13 18:54	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	06/10/13 18:54	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56672.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (053113)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	06/10/13 18:54	WAT		
o-Xylene	Not detected	ug/L	1	E624	06/10/13 18:54	WAT	95-47-6	

Lab Sample ID: S56672.05
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (053113)
Collected Date/Time: 05/31/2013 14:00
Matrix: Water
COC Reference: BC053113.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.2	IR
1	125ml Plastic	NaOH	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	06/11/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	06/10/13 12:20	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	06/04/13 12:37	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	06/10/13 19:15	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	06/10/13 19:15	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S56672.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (053113)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	06/10/13 19:15	WAT		
o-Xylene	Not detected	ug/L	1	E624	06/10/13 19:15	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC053113.1

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City State Zip: Brighton, MI	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: B. Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix
56672					
.01 AOI-09B-GAC-EFF-COMPOSIT (053113)	5/31/13	1640	x		w
.02 AOI-09B-GAC-EFF-GRAB01 (053113)	5/31/13	1315		x	w
.03 AOI-09B-GAC-EFF-GRAB02 (053113)	5/31/13	1330		x	w
.04 AOI-09B-GAC-EFF-GRAB03 (053113)	5/31/13	1345		x	w
.05 AOI-09B-GAC-EFF-GRAB04 (053113)	5/31/13	1400		x	w

Preservative	D	A	E	B	C	B	B	E	B	E
# of Containers	1	1	1	1	1	3	3	2	2	2
Container Information	3	4	10	10	3	1	1	2	1	2

PARAMETER ANALYSIS & METHOD

Sample ID	Total As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Ammonia & phosphorus	BOD & Suspended Solids	Oil & Grease	Amenable Cyanide	VOCs TTO	BTEX	SVOCs TTO	TPH GRO (C6-C12)	PCBs	REMARKS
.01 AOI-09B-GAC-EFF-COMPOSIT (053113)	x	x	x					x		x	Standard 2 wk TAT
.02 AOI-09B-GAC-EFF-GRAB01 (053113)				x	x	x					Standard 2 wk TAT
.03 AOI-09B-GAC-EFF-GRAB02 (053113)				x	x	x					Standard 2 wk TAT
.04 AOI-09B-GAC-EFF-GRAB03 (053113)				x	x	x					Standard 2 wk TAT
.05 AOI-09B-GAC-EFF-GRAB04 (053113)				x	x	x					Standard 2 wk TAT

KEYS

Preservation Key:
A. H_2SO_4
B. HCL
C. NaOH
D. HNO_3
E. None
F.
G.
H.

Container Information Key:
1. 40 mL VOA
2. 1 L Amber
3. 125 mL Plastic
4. 250 mL Plastic
5. 500 mL Plastic
6. 1 L Plastic
7. 2 oz. Glass
8. 4 oz. Glass
9. 8 oz. Glass
10. Other

Matrix Key:
SE = Sediment A = Air L = Liquid
S = Solids NL = NAPL / Oil SW = Surface

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt

Lab Name: Merit	Cooler Custody Seal: ☐ Intact ☐ Not Intact
☑ Cooler packed with ice (✓)	
Specify Turnaround Requirements: Standard 2 week TAT	Sample Receipt:
Fed-Ex Tracking #:	Condition/Cooler Temp: 5.2

Relinquished By	Received By	Laboratory Received By
Printed Name: B. Lawrence	Printed Name: Chris Swarthout	Printed Name: Tabitha Faust
Signature:	Signature:	Signature: Tabitha Faust
Firm: ARCADIS	Firm: Merit	Firm: Merit
Date/Time: 6/3/2013 1300	Date/Time: 6-3-13 1415	Date/Time: 6/3/13 1415

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S56672.01(01)
Generated on 06/17/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S56672.01-S56672.09
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 06/03/2013 14:15
Sampled by: B Lawrence
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-10)
Prep Batch Summary (Pages 11-12)
Surrogates per Lab Sample (Pages 13-21)
Surrogates per QC Sample (Pages 22-28)
Batch QC Results (Pages 29-45)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S56672.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (053113)
Collected Date/Time: 05/31/2013 16:40
Matrix: Water
COC Reference: BC053113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	06/05/13 15:42	AMN130605	AMN130605	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	06/07/13 10:23	PHS130607	PHS130607	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	06/06/13 17:30	TSS130606	TSS130606	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Cadmium	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Chromium	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Copper	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Lead	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Mercury	E245.1	06/04/13 15:14	HG2-13-0604A	HGD-060413-1	No	LCS/BLK/MS/MSD
Nickel	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Silver	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Zinc	E200.8	06/12/13 15:32	MT2-13-0612B	MTD-061213-5	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	06/04/13 14:09	A130604	PA130604W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	06/07/13 14:50	Z130607	SF130605W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S56672.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (053113)

Collected Date/Time: 05/31/2013 13:15

Matrix: Water

COC Reference: BC053113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:08	CN130610-W1	CN130610-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01	OGHEX130604W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	06/10/13 18:12	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	06/10/13 18:12	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S56672.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (053113)

Collected Date/Time: 05/31/2013 13:30

Matrix: Water

COC Reference: BC053113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:16	CN130610-W1	CN130610-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01	OGHEX130604W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	06/10/13 18:33	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	06/10/13 18:33	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S56672.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (053113)

Collected Date/Time: 05/31/2013 13:45

Matrix: Water

COC Reference: BC053113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:18	CN130610-W1	CN130610-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01	OGHEX130604W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	06/10/13 18:54	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	06/10/13 18:54	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S56672.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (053113)

Collected Date/Time: 05/31/2013 14:00

Matrix: Water

COC Reference: BC053113.1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:20	CN130610-W1	CN130610-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01	OGHEX130604W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	06/10/13 19:15	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	06/10/13 19:15	130610A5	VF130610W1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130605

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	Ammonia-N (Undistilled)	4500-NH3 D	06/05/13 15:42	AMN130605

Inorganics, Prep Batch ID: CN130610-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.02	Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:08	CN130610-W1
S56672.03	Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:16	CN130610-W1
S56672.04	Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:18	CN130610-W1
S56672.05	Amenable Cyanide	335.4/4500-CN-G	06/10/13 12:20	CN130610-W1

Inorganics, Prep Batch ID: OGHEX130604W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.02	Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01
S56672.03	Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01
S56672.04	Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01
S56672.05	Oil & Grease n-Hexane Extract.	1664A	06/04/13 12:37	OGHEX130604W01

Inorganics, Prep Batch ID: PHS130607

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	Total Phosphorus	4500-PE	06/07/13 10:23	PHS130607

Inorganics, Prep Batch ID: TSS130606

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	Total Suspended Solids	2540 D	06/06/13 17:30	TSS130606

Metals, Prep Batch ID: HGD-060413-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	Mercury	E245.1	06/04/13 15:14	HG2-13-0604A

Metals, Prep Batch ID: MTD-061213-5

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	Arsenic	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Cadmium	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Chromium	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Copper	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Lead	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Nickel	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Silver	E200.8	06/12/13 15:32	MT2-13-0612B
S56672.01	Zinc	E200.8	06/12/13 15:32	MT2-13-0612B

Organics - PCBs/Pesticides, Prep Batch ID: PA130604W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	PCB	E608	06/04/13 14:09	A130604

Organics - Semi-Volatiles, Prep Batch ID: SF130605W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.01	SVOCs, TTO List	E625M	06/07/13 14:50	Z130607

Organics - Volatiles, Prep Batch ID: VF130606W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.06	BTEX, GC/MS	SW8260B	06/06/13 19:08	130606A3
S56672.07	BTEX, GC/MS	SW8260B	06/06/13 19:28	130606A3
S56672.09	BTEX, GC/MS	SW8260B	06/06/13 17:27	130606A3

Organics - Volatiles, Prep Batch ID: VF130610W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.02	VOCs, TTO List	E624	06/10/13 18:12	130610A5
S56672.02	Xylenes	E624	06/10/13 18:12	130610A5
S56672.03	VOCs, TTO List	E624	06/10/13 18:33	130610A5
S56672.03	Xylenes	E624	06/10/13 18:33	130610A5
S56672.04	VOCs, TTO List	E624	06/10/13 18:54	130610A5
S56672.04	Xylenes	E624	06/10/13 18:54	130610A5
S56672.05	VOCs, TTO List	E624	06/10/13 19:15	130610A5
S56672.05	Xylenes	E624	06/10/13 19:15	130610A5

Organics - Volatiles, Prep Batch ID: VF130611W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.08	VOCs, TTO List	E624	06/11/13 21:35	130611A5
S56672.08	Xylenes	E624	06/11/13 21:35	130611A5

Organics - Volatiles, Prep Batch ID: VG130612W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S56672.08	TPH GRO (C6-C12)	SW8015M	06/12/13 14:47	130612A4

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56672.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (053113)

Collected Date/Time: 05/31/2013 16:40

Matrix: Water

COC Reference: BC053113.1

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: A130604, Run Date: 06/04/2013 14:09, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**47.90**	34.1	137.1
DCBP		**61.40**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z130607, Run Date: 06/07/2013 14:50, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**32.60**	10.0	110.0
2-Fluorobiphenyl		**68.20**	10.0	116.0
Nitrobenzene-D5		**56.80**	10.0	114.0
Phenol-D5		**29.20**	10.0	110.0
2,4,6-Tribromophenol		**57.40**	10.0	123.0
Terphenyl-D14		**97.60**	10.0	141.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56672.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (053113)

Collected Date/Time: 05/31/2013 13:15

Matrix: Water

COC Reference: BC053113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130610A5, Run Date: 06/10/2013 18:12, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.60**	83.0	119.0
1,2-Dichloroethane-D4		**103.00**	77.0	121.0
Toluene-D8		**98.00**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56672.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (053113)

Collected Date/Time: 05/31/2013 13:30

Matrix: Water

COC Reference: BC053113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130610A5, Run Date: 06/10/2013 18:33, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.00**	83.0	119.0
1,2-Dichloroethane-D4		**104.00**	77.0	121.0
Toluene-D8		**95.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S56672.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (053113)

Collected Date/Time: 05/31/2013 13:45

Matrix: Water

COC Reference: BC053113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130610A5, Run Date: 06/10/2013 18:54, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.20**	83.0	119.0
1,2-Dichloroethane-D4		**104.80**	77.0	121.0
Toluene-D8		**96.80**	86.0	118.0

Lab Sample ID: S56672.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (053113)

Collected Date/Time: 05/31/2013 14:00

Matrix: Water

COC Reference: BC053113.1

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130610A5, Run Date: 06/10/2013 19:15, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.60**	83.0	119.0
1,2-Dichloroethane-D4		**106.20**	77.0	121.0
Toluene-D8		**95.80**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130604W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13060409.slcs-w.01

Run in Batch: A130604, Run Date: 06/04/2013 12:39, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**68.60**	34.1	137.1
DCBP		**56.30**	30.0	138.6

Blank (BLK)

Lab Sample ID: a13060408.sblk-w.01

Run in Batch: A130604, Run Date: 06/04/2013 12:08, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**91.60**	34.1	137.1
DCBP		**89.20**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13060410.slcs-w.01d, Parent Sample ID: a13060409.slcs-w.01

Run in Batch: A130604, Run Date: 06/04/2013 12:51, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**86.40**	34.1	137.1
DCBP		**72.80**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF130605W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130607.lcsw07a

Run in Batch: Z130607, Run Date: 06/07/2013 13:44, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**54.80**	10.0	110.0
2-Fluorobiphenyl		**67.10**	10.0	116.0
Nitrobenzene-D5		**68.20**	10.0	114.0
Phenol-D5		**57.50**	10.0	110.0
2,4,6-Tribromophenol		**60.80**	10.0	123.0
Terphenyl-D14		**77.70**	10.0	141.0

Blank (BLK)

Lab Sample ID: z130607.blkw07a

Run in Batch: Z130607, Run Date: 06/07/2013 13:10, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**61.40**	10.0	110.0
2-Fluorobiphenyl		**76.20**	10.0	116.0
Nitrobenzene-D5		**77.60**	10.0	114.0
Phenol-D5		**65.30**	10.0	110.0
2,4,6-Tribromophenol		**73.30**	10.0	123.0
Terphenyl-D14		**92.00**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130607.lcsdw07a, Parent Sample ID: z130607.lcsw07a

Run in Batch: Z130607, Run Date: 06/07/2013 14:17, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**51.40**	10.0	110.0
2-Fluorobiphenyl		**65.10**	10.0	116.0
Nitrobenzene-D5		**64.80**	10.0	114.0
Phenol-D5		**54.80**	10.0	110.0
2,4,6-Tribromophenol		**59.70**	10.0	123.0
Terphenyl-D14		**76.20**	10.0	141.0

Organics - Volatiles, Prep Batch ID: VF130606W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130606a3.lcsw06a

Run in Batch: 130606A3, Run Date: 06/06/2013 15:47, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.40**	83.0	119.0
1,2-Dichloroethane-D4		**107.00**	77.0	121.0
Toluene-D8		**102.60**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130606a3.blkt06a

Run in Batch: 130606A3, Run Date: 06/06/2013 16:47, Prep Date: 06/06/2013, Matrix: WW, Dilution: 50

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.60**	83.0	119.0
1,2-Dichloroethane-D4		**103.80**	77.0	121.0
Toluene-D8		**97.60**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130606a3.blkw06a

Run in Batch: 130606A3, Run Date: 06/06/2013 17:07, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.20**	83.0	119.0
1,2-Dichloroethane-D4		**106.60**	77.0	121.0
Toluene-D8		**99.60**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130606a3.lcsw06b, Parent Sample ID: 130606a3.lcsw06a

Run in Batch: 130606A3, Run Date: 06/06/2013 16:07, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**102.80**	83.0	119.0
1,2-Dichloroethane-D4		**96.80**	77.0	121.0
Toluene-D8		**102.40**	86.0	118.0

Organics - Volatiles, Prep Batch ID: VF130610W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130610a5.lcsw10a

Run in Batch: 130610A5, Run Date: 06/10/2013 12:04, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.80**	83.0	119.0
1,2-Dichloroethane-D4		**103.20**	77.0	121.0
Toluene-D8		**102.20**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130610a5.blkw10a

Run in Batch: 130610A5, Run Date: 06/10/2013 15:26, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.80**	83.0	119.0
1,2-Dichloroethane-D4		**101.80**	77.0	121.0
Toluene-D8		**98.00**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130610a5.5680502m, Parent Sample ID: S56805.01

Run in Batch: 130610A5, Run Date: 06/10/2013 13:00, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.00**	83.0	119.0
1,2-Dichloroethane-D4		**100.20**	77.0	121.0
Toluene-D8		**101.20**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130610a5.5680505m, Parent Sample ID: S56805.04

Run in Batch: 130610A5, Run Date: 06/10/2013 13:42, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**103.80**	77.0	121.0
Toluene-D8		**101.60**	86.0	118.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130610a5.5680503n, Parent Sample ID: 130610a5.5680502m

Run in Batch: 130610A5, Run Date: 06/10/2013 13:21, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.40**	83.0	119.0
1,2-Dichloroethane-D4		**103.80**	77.0	121.0
Toluene-D8		**101.60**	86.0	118.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130610a5.5680506n, Parent Sample ID: 130610a5.5680505m

Run in Batch: 130610A5, Run Date: 06/10/2013 14:02, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.40**	83.0	119.0
1,2-Dichloroethane-D4		**104.60**	77.0	121.0
Toluene-D8		**101.60**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130610a5.lcsw10b, Parent Sample ID: 130610a5.lcsw10a

Run in Batch: 130610A5, Run Date: 06/10/2013 12:25, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**99.40**	77.0	121.0
Toluene-D8		**102.00**	86.0	118.0

Organics - Volatiles, Prep Batch ID: VF130611W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130611a5.lcsw11a

Run in Batch: 130611A5, Run Date: 06/11/2013 12:01, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.80**	83.0	119.0
1,2-Dichloroethane-D4		**96.00**	77.0	121.0
Toluene-D8		**99.40**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130611a5.blkw11a

Run in Batch: 130611A5, Run Date: 06/11/2013 13:43, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**93.40**	83.0	119.0
1,2-Dichloroethane-D4		**100.00**	77.0	121.0
Toluene-D8		**94.20**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130611a5.5670604m, Parent Sample ID: S56706.03

Run in Batch: 130611A5, Run Date: 06/11/2013 22:16, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.80**	83.0	119.0
1,2-Dichloroethane-D4		**95.60**	77.0	121.0
Toluene-D8		**100.20**	86.0	118.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130611a5.5670605n, Parent Sample ID: 130611a5.5670604m

Run in Batch: 130611A5, Run Date: 06/11/2013 22:37, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.40**	83.0	119.0
1,2-Dichloroethane-D4		**97.80**	77.0	121.0
Toluene-D8		**99.40**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130611a5.lcsw11b, Parent Sample ID: 130611a5.lcsw11a

Run in Batch: 130611A5, Run Date: 06/11/2013 12:21, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.60**	83.0	119.0
1,2-Dichloroethane-D4		**98.60**	77.0	121.0
Toluene-D8		**99.80**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VG130612W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130612a4.lcsw12a

Run in Batch: 130612A4, Run Date: 06/12/2013 13:52, Prep Date: 06/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**87.50**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130612a4.blkw12a

Run in Batch: 130612A4, Run Date: 06/12/2013 14:29, Prep Date: 06/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**87.00**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130612a4.lcsw12b, Parent Sample ID: 130612a4.lcsw12a

Run in Batch: 130612A4, Run Date: 06/12/2013 15:17, Prep Date: 06/12/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**91.70**	86.0	118.0

Inorganics, Prep Batch ID: AMN130605

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130605.LRB1

Run in Batch: AMN130605, Run Date: 06/05/2013 12:06, Prep Date: 06/05/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130605.LCS1

Run in Batch: AMN130605, Run Date: 06/05/2013 12:40, Prep Date: 06/05/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**107**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130605.MS1, Parent Sample ID: S56665.23

Run in Batch: AMN130605, Run Date: 06/05/2013 14:01, Prep Date: 06/05/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**100**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130605.DP1, Parent Sample ID: S56696.01

Run in Batch: AMN130605, Run Date: 06/05/2013 16:18, Prep Date: 06/05/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**3.2**	20

Inorganics, Prep Batch ID: CN130610-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130610-W1.LRB1

Run in Batch: CN130610-W1, Run Date: 06/10/2013 12:00, Prep Date: 06/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130610-W1.LCS1

Run in Batch: CN130610-W1, Run Date: 06/10/2013 12:06, Prep Date: 06/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**97**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130610-W1.MS1, Parent Sample ID: S56672.02

Run in Batch: CN130610-W1, Run Date: 06/10/2013 12:12, Prep Date: 06/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**93**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130610-W1.MSD1, Parent Sample ID: CN130610-W1.MS1

Run in Batch: CN130610-W1, Run Date: 06/10/2013 12:14, Prep Date: 06/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**94**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN130610-W1.DP1, Parent Sample ID: S56672.02

Run in Batch: CN130610-W1, Run Date: 06/10/2013 12:10, Prep Date: 06/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130604W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX130604W01.LRB1

Run in Batch: OGHEX130604W01, Run Date: 06/04/2013 12:37, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130604W01.LCS1

Run in Batch: OGHEX130604W01, Run Date: 06/04/2013 12:37, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**88**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130604W01.LCS2

Run in Batch: OGHEX130604W01, Run Date: 06/04/2013 12:37, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**94**	78	114

Inorganics, Prep Batch ID: PHS130607

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS130607.LRB1

Run in Batch: PHS130607, Run Date: 06/07/2013 10:08, Prep Date: 06/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS130607.LRB2

Run in Batch: PHS130607, Run Date: 06/07/2013 10:14, Prep Date: 06/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS130607.LCS1

Run in Batch: PHS130607, Run Date: 06/07/2013 10:20, Prep Date: 06/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**92**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS130607.MS1, Parent Sample ID: S56672.01

Run in Batch: PHS130607, Run Date: 06/07/2013 15:38, Prep Date: 06/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**95**	80	120

Duplicate (DUP)

Lab Sample ID: PHS130607.DP1, Parent Sample ID: S56688.01

Run in Batch: PHS130607, Run Date: 06/07/2013 15:36, Prep Date: 06/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**1.2**	20

Inorganics, Prep Batch ID: TSS130606

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130606.LRB1

Run in Batch: TSS130606, Run Date: 06/06/2013 17:30, Prep Date: 06/06/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**1**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130606.LCS1

Run in Batch: TSS130606, Run Date: 06/06/2013 17:30, Prep Date: 06/06/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**102**	76	116

Duplicate (DUP)

Lab Sample ID: TSS130606.DP1, Parent Sample ID: S56709.02

Run in Batch: TSS130606, Run Date: 06/06/2013 17:30, Prep Date: 06/06/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**11**	15

Metals, Prep Batch ID: HGD-060413-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0604A.016.LCS

Run in Batch: HG2-13-0604A, Run Date: 06/04/2013 14:52, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**100**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0604A.017.LRB

Run in Batch: HG2-13-0604A, Run Date: 06/04/2013 14:54, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0604A.028.MS, Parent Sample ID: S56672.01

Run in Batch: HG2-13-0604A, Run Date: 06/04/2013 15:16, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**101**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0604A.029.MSD, Parent Sample ID: HG2-13-0604A.028.MS

Run in Batch: HG2-13-0604A, Run Date: 06/04/2013 15:18, Prep Date: 06/04/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**98**	80	120	**4**	20

Metals, Prep Batch ID: MTD-061213-5

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT2-13-0612B.017.LCS

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 14:44, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**100**	85	115
Cadmium		**101**	85	115
Chromium		**103**	85	115
Copper		**101**	85	115
Lead		**101**	85	115
Nickel		**98**	85	115
Silver		**100**	85	115
Zinc		**99**	85	115

Blank (BLK)

Lab Sample ID: MT2-13-0612B.018.LRB

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 14:53, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.001	mg/L
Cadmium		**ND**	0.0002	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.001	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0002	mg/L
Zinc		**ND**	0.001	mg/L

Matrix Spike (MS)

Lab Sample ID: MT2-13-0612B.030.MS, Parent Sample ID: S56731.04

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 15:43, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**114**	75	125
Cadmium		**103**	75	125
Chromium		**98**	75	125
Copper		**101**	75	125
Lead		**93**	75	125
Nickel		**102**	75	125
Silver		**98**	75	125
Zinc		**106**	75	125

Matrix Spike (MS)

Lab Sample ID: MT2-13-0612B.044.MS, Parent Sample ID: S56636.02

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 16:53, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**112**	75	125
Cadmium		**104**	75	125
Chromium		**97**	75	125
Copper		**88**	75	125
Lead		**96**	75	125
Nickel		**104**	75	125
Silver		**99**	75	125

Metals, Prep Batch ID: MTD-061213-5 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike (MS) (continued)

Lab Sample ID: MT2-13-0612B.044.MS, Parent Sample ID: S56636.02

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 16:53, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Zinc		**107**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0612B.031.MSD, Parent Sample ID: MT2-13-0612B.030.MS

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 15:45, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**110**	75	125	**3**	20
Cadmium		**103**	75	125	**0**	20
Chromium		**97**	75	125	**1**	20
Copper		**102**	75	125	**1**	20
Lead		**93**	75	125	**0**	20
Nickel		**103**	75	125	**2**	20
Silver		**101**	75	125	**2**	20
Zinc		**106**	75	125	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0612B.045.MSD, Parent Sample ID: MT2-13-0612B.044.MS

Run in Batch: MT2-13-0612B, Run Date: 06/12/2013 16:55, Prep Date: 06/12/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**108**	75	125	**4**	20
Cadmium		**99**	75	125	**4**	20
Chromium		**98**	75	125	**1**	20
Copper		**83**	75	125	**5**	20
Lead		**96**	75	125	**0**	20
Nickel		**100**	75	125	**4**	20
Silver		**96**	75	125	**3**	20
Zinc		**101**	75	125	**5**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130604W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13060409.slcs-w.01

Run in Batch: A130604, Run Date: 06/04/2013 12:39, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**81.04**	50.0	125.0

Blank (BLK)

Lab Sample ID: a13060408.sblk-w.01

Run in Batch: A130604, Run Date: 06/04/2013 12:08, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13060410.slcs-w.01d, Parent Sample ID: a13060409.slcs-w.01

Run in Batch: A130604, Run Date: 06/04/2013 12:51, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**92.10**	50.0	125.0	**12.8**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130605W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130607.lcsw07a

Run in Batch: Z130607, Run Date: 06/07/2013 13:44, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Chlorophenol		**67.28**	14.0	123.0
4-Nitrophenol		**58.66**	10.0	110.0
Acenaphthene		**75.70**	26.4	118.0
4-Chloro-3-methylphenol		**69.60**	20.8	120.7
1,4-Dichlorobenzene		**64.74**	16.8	110.0
2,4-Dinitrotoluene		**70.78**	24.0	110.0
N-Nitrosodi-n-propylamine		**69.70**	31.3	119.6
Pentachlorophenol		**67.96**	10.0	110.9
Phenol		**69.28**	10.0	110.0
Pyrene		**73.98**	23.0	127.5
1,2,4-Trichlorobenzene		**68.30**	20.5	110.0

Blank (BLK)

Lab Sample ID: z130607.blkw07a

Run in Batch: Z130607, Run Date: 06/07/2013 13:10, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate		**ND**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130605W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z130607.blkw07a

Run in Batch: Z130607, Run Date: 06/07/2013 13:10, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	0.5	ug/l
Pentachlorophenol		**ND**	0.5	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130607.lcsdw07a, Parent Sample ID: z130607.lcsw07a

Run in Batch: Z130607, Run Date: 06/07/2013 14:17, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Chlorophenol		**58.30**	14.0	123.0	**14.3**	30.0
4-Nitrophenol		**50.06**	10.0	110.0	**15.8**	30.0
Acenaphthene		**66.80**	26.4	118.0	**12.5**	30.0
4-Chloro-3-methylphenol		**60.66**	20.8	120.7	**13.7**	30.0
1,4-Dichlorobenzene		**56.32**	16.8	110.0	**13.9**	30.0
2,4-Dinitrotoluene		**61.16**	24.0	110.0	**14.6**	30.0
N-Nitrosodi-n-propylamine		**60.58**	31.3	119.6	**14.0**	30.0
Pentachlorophenol		**58.52**	10.0	110.9	**14.9**	30.0
Phenol		**60.18**	10.0	110.0	**14.1**	30.0
Pyrene		**64.16**	23.0	127.5	**14.2**	30.0
1,2,4-Trichlorobenzene		**59.88**	20.5	110.0	**13.1**	30.0

Organics - Volatiles, Prep Batch ID: VF130606W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130606a3.lcsw06a

Run in Batch: 130606A3, Run Date: 06/06/2013 15:47, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**114.56**	79.9	124.9
Chlorobenzene		**106.46**	79.2	122.7
1,1-Dichloroethene		**113.34**	69.6	139.4
Trichloroethene		**109.28**	79.7	124.2
Toluene		**112.72**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130606a3.blkt06a

Run in Batch: 130606A3, Run Date: 06/06/2013 16:47, Prep Date: 06/06/2013, Matrix: WW, Dilution: 50

Analyte	Flags	Conc	RDL	Units
Benzene		**ND**	50	ug/l
Toluene		**ND**	50	ug/l
Ethylbenzene		**ND**	50	ug/l
p,m-Xylene		**ND**	50	ug/l
o-Xylene		**ND**	50	ug/l

Blank (BLK)

Lab Sample ID: 130606a3.blkw06a

Run in Batch: 130606A3, Run Date: 06/06/2013 17:07, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Benzene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130606a3.lcsw06b, Parent Sample ID: 130606a3.lcsw06a

Run in Batch: 130606A3, Run Date: 06/06/2013 16:07, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**114.02**	79.9	124.9	**0.5**	30.0
Chlorobenzene		**105.58**	79.2	122.7	**0.8**	30.0
1,1-Dichloroethene		**107.26**	69.6	139.4	**5.5**	30.0
Trichloroethene		**109.36**	79.7	124.2	**0.1**	30.0
Toluene		**112.88**	79.8	124.5	**0.1**	30.0

Organics - Volatiles, Prep Batch ID: VF130610W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130610a5.lcsw10a

Run in Batch: 130610A5, Run Date: 06/10/2013 12:04, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**100.68**	79.9	124.9
Chlorobenzene		**95.86**	79.2	122.7
1,1-Dichloroethene		**103.26**	69.6	139.4
Trichloroethene		**101.92**	79.7	124.2
Toluene		**102.72**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130610a5.blkw10a

Run in Batch: 130610A5, Run Date: 06/10/2013 15:26, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130610W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Matrix Spike (MS)

Lab Sample ID: 130610a5.5680502m, Parent Sample ID: S56805.01

Run in Batch: 130610A5, Run Date: 06/10/2013 13:00, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**101.40**	79.9	124.9
Chlorobenzene		**96.84**	79.2	122.7
1,1-Dichloroethene		**106.58**	69.6	139.4
Trichloroethene		**104.06**	79.7	124.2
Toluene		**103.78**	79.8	124.5

Matrix Spike (MS)

Lab Sample ID: 130610a5.5680505m, Parent Sample ID: S56805.04

Run in Batch: 130610A5, Run Date: 06/10/2013 13:42, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**100.52**	79.9	124.9
Chlorobenzene		**96.14**	79.2	122.7
1,1-Dichloroethene		**105.88**	69.6	139.4
Trichloroethene		**103.26**	79.7	124.2
Toluene		**102.96**	79.8	124.5

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130610a5.5680503n, Parent Sample ID: 130610a5.5680502m

Run in Batch: 130610A5, Run Date: 06/10/2013 13:21, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**99.78**	79.9	124.9	**1.6**	30.0
Chlorobenzene		**94.96**	79.2	122.7	**2.0**	30.0
1,1-Dichloroethene		**105.20**	69.6	139.4	**1.3**	30.0
Trichloroethene		**102.78**	79.7	124.2	**1.2**	30.0
Toluene		**101.68**	79.8	124.5	**2.0**	30.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130610a5.5680506n, Parent Sample ID: 130610a5.5680505m

Run in Batch: 130610A5, Run Date: 06/10/2013 14:02, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**100.24**	79.9	124.9	**0.3**	30.0
Chlorobenzene		**96.56**	79.2	122.7	**0.4**	30.0
1,1-Dichloroethene		**107.20**	69.6	139.4	**1.2**	30.0
Trichloroethene		**103.44**	79.7	124.2	**0.2**	30.0
Toluene		**102.30**	79.8	124.5	**0.6**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130610a5.lcsw10b, Parent Sample ID: 130610a5.lcsw10a

Run in Batch: 130610A5, Run Date: 06/10/2013 12:25, Prep Date: 06/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**100.04**	79.9	124.9	**0.6**	30.0
Chlorobenzene		**96.14**	79.2	122.7	**0.3**	30.0
1,1-Dichloroethene		**106.78**	69.6	139.4	**3.4**	30.0
Trichloroethene		**102.30**	79.7	124.2	**0.4**	30.0
Toluene		**102.22**	79.8	124.5	**0.5**	30.0

Organics - Volatiles, Prep Batch ID: VF130611W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130611a5.lcsw11a

Run in Batch: 130611A5, Run Date: 06/11/2013 12:01, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**92.00**	79.9	124.9
Chlorobenzene		**94.66**	79.2	122.7
1,1-Dichloroethene		**93.38**	69.6	139.4
Trichloroethene		**93.56**	79.7	124.2
Toluene		**94.46**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130611a5.blkw11a

Run in Batch: 130611A5, Run Date: 06/11/2013 13:43, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130611W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Matrix Spike (MS)

Lab Sample ID: 130611a5.5670604m, Parent Sample ID: S56706.03

Run in Batch: 130611A5, Run Date: 06/11/2013 22:16, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**90.58**	79.9	124.9
Chlorobenzene		**93.26**	79.2	122.7
1,1-Dichloroethene		**86.32**	69.6	139.4
Trichloroethene		**90.84**	79.7	124.2
Toluene		**92.18**	79.8	124.5

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130611a5.5670605n, Parent Sample ID: 130611a5.5670604m

Run in Batch: 130611A5, Run Date: 06/11/2013 22:37, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**88.66**	79.9	124.9	**2.1**	30.0
Chlorobenzene		**90.32**	79.2	122.7	**3.2**	30.0
1,1-Dichloroethene		**84.24**	69.6	139.4	**2.4**	30.0
Trichloroethene		**89.04**	79.7	124.2	**2.0**	30.0
Toluene		**90.26**	79.8	124.5	**2.1**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130611a5.lcsw11b, Parent Sample ID: 130611a5.lcsw11a

Run in Batch: 130611A5, Run Date: 06/11/2013 12:21, Prep Date: 06/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**90.36**	79.9	124.9	**1.8**	30.0
Chlorobenzene		**92.84**	79.2	122.7	**1.9**	30.0
1,1-Dichloroethene		**92.82**	69.6	139.4	**0.6**	30.0
Trichloroethene		**91.24**	79.7	124.2	**2.5**	30.0
Toluene		**91.72**	79.8	124.5	**2.9**	30.0

Organics - Volatiles, Prep Batch ID: VG130612W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130612a4.lcsw12a

Run in Batch: 130612A4, Run Date: 06/12/2013 13:52, Prep Date: 06/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
TPH GRO (C6-C12)		**98.22**	58.0	119.0

Blank (BLK)

Lab Sample ID: 130612a4.blkw12a

Run in Batch: 130612A4, Run Date: 06/12/2013 14:29, Prep Date: 06/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
TPH GRO (C6-C12)		**ND**	100	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130612a4.lcsw12b, Parent Sample ID: 130612a4.lcsw12a

Run in Batch: 130612A4, Run Date: 06/12/2013 15:17, Prep Date: 06/12/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
TPH GRO (C6-C12)		**98.08**	58.0	119.0	**0.1**	30.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC053113.1

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City State Zip: Brighton, MI	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: B. Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix
56672					
.01 AOI-09B-GAC-EFF-COMPOSIT (053113)	5/31/13	1640	x		w
.02 AOI-09B-GAC-EFF-GRAB01 (053113)	5/31/13	1315		x	w
.03 AOI-09B-GAC-EFF-GRAB02 (053113)	5/31/13	1330		x	w
.04 AOI-09B-GAC-EFF-GRAB03 (053113)	5/31/13	1345		x	w
.05 AOI-09B-GAC-EFF-GRAB04 (053113)	5/31/13	1400		x	w

Preservative	D	A	E	B	C	B	B	E	B	E
# of Containers	1	1	1	1	1	3	3	2	2	2
Container Information	3	4	10	10	3	1	1	2	1	2

PARAMETER ANALYSIS & METHOD

Sample ID	Total As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Ammonia & phosphorus	BOD & Suspended Solids	Oil & Grease	Amenable Cyanide	VOCs TTO	BTEX	SVOCs TTO	TPH GRO (C6-C12)	PCBs	REMARKS
.01 AOI-09B-GAC-EFF-COMPOSIT (053113)	x	x	x					x		x	Standard 2 wk TAT
.02 AOI-09B-GAC-EFF-GRAB01 (053113)				x	x	x					Standard 2 wk TAT
.03 AOI-09B-GAC-EFF-GRAB02 (053113)				x	x	x					Standard 2 wk TAT
.04 AOI-09B-GAC-EFF-GRAB03 (053113)				x	x	x					Standard 2 wk TAT
.05 AOI-09B-GAC-EFF-GRAB04 (053113)				x	x	x					Standard 2 wk TAT

KEYS

Preservation Key:
A. H_2SO_4
B. HCL
C. NaOH
D. HNO_3
E. None
F.
G.
H.

Container Information Key:
1. 40 mL VOA
2. 1 L Amber
3. 125 mL Plastic
4. 250 mL Plastic
5. 500 mL Plastic
6. 1 L Plastic
7. 2 oz. Glass
8. 4 oz. Glass
9. 8 oz. Glass
10. Other

Matrix Key:
SE = Sediment A = Air L = Liquid
S = Solids NL = NAPL / Oil SW = Surface

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt

Lab Name: Merit	Cooler Custody Seal: ☐ Intact ☐ Not Intact
☑ Cooler packed with ice (✓)	
Specify Turnaround Requirements: Standard 2 week TAT	Sample Receipt:
Fed-Ex Tracking #:	Condition/Cooler Temp: 5.2

Relinquished By	Received By	Laboratory Received By
Printed Name: B. Lawrence	Printed Name: Chris Swarthout	Printed Name: Tabitha Faust
Signature:	Signature:	Signature: Tabitha Faust
Firm: ARCADIS	Firm: Merit	Firm: Merit
Date/Time: 6/3/2013 1300	Date/Time: 6-3-13 1415	Date/Time: 6/3/13 1415

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

ENVIRONMENT

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
June 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during June 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of June 2013, 16,090.10 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flowrates on average were 447 cubic feet (3,343 gallons per day) at an average 14 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on June 28, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E624M,
- total mercury according to USEPA Method EPA 245.1, and
- PCBs according to USEPA Method E608.

Date:
July 25, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

The four effluent wastewater samples were analyzed for:

- pH (field measured) according to USEPA Method 4500HB.
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Due to time constraints and system operational issues experienced in June the City of Flint was not able to collect an effluent sample from the MPE system. Multiple attempts were made to collect the sample, but noncontinuous effluent flow and system shut downs prevented the City of Flint from being able to collect the sample in June. Modifications to the treatment system were made following identification of the problems to allow for continuous flow and proper operation prior to ARCADIS collecting the sample on June 28, 2013.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on June 28, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.06	0.02	<	1	0.02	0.01	3	1	0.008	0.002	<	0.0005	<	0.005	<	0.004	<	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	7/3/2013		7/3/2013		7/2/2013		7/3/2013		7/15/2013		7/15/2013		7/15/2013		7/15/2013		7/15/2013	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	0.06		<		0.02		3		0.008		<		<		<		<	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	<	0.005	<	0.0005	0.017	0.005	8.3		<	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	7/2/2013		7/15/2013		7/15/2013		7/15/2013		6/28/2013		7/8/2013		7/3/2013		7/9/2013		7/9/2013	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		8.3		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		6/28/2013		7/8/2013		7/3/2013		7/9/2013		7/9/2013	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.1		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		6/28/2013		7/8/2013		7/3/2013		7/9/2013		7/9/2013	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.1		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		6/28/2013		7/8/2013		7/3/2013		7/9/2013		7/9/2013	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		<		0.017		7.7		<		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.001	<	Varies	< (bis(2-Ethylhexyl)phthalate	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	7/9/2013		7/9/2013		7/9/2013		7/10/2013		7/2/2013	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	7/9/2013		7/9/2013		7/9/2013		NA		NA	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	7/9/2013		7/9/2013		7/9/2013		NA		NA	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	7/9/2013		7/9/2013		7/9/2013		NA		NA	
Sample Date	6/28/2013		6/28/2013		6/28/2013		6/28/2013		6/28/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		<		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Supplemental Report

Report ID: S57071.04(02)
Generated on 07/16/2013
Replaces report S57071.04(01)

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Trevor Swarthout, Erin Kozak

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S57071.04-S57071.08
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 06/28/2013
Submitted Date/Time: 06/28/2013 14:30
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Sample .04-.08 per client request

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S57071.04	AOI-09B-GAC-EFF-COMPOSITE (062813)	Water	06/28/2013 12:30
S57071.05	AOI-09B-GAC-EFF-GRAB01 (062813)	Water	06/28/2013 11:00
S57071.06	AOI-09B-GAC-EFF-GRAB02 (062813)	Water	06/28/2013 11:10
S57071.07	AOI-09B-GAC-EFF-GRAB03 (062813)	Water	06/28/2013 11:20
S57071.08	AOI-09B-GAC-EFF-GRAB04 (062813)	Water	06/28/2013 11:30

Lab Sample ID: S57071.04
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (062813)
Collected Date/Time: 06/28/2013 12:30
Matrix: Water
COC Reference: BC062813.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.2	IR
1	250ml Plastic	H2SO4	Yes	5.2	IR
1	1L Plastic	None	Yes	5.2	IR
4	1L Amber	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	07/01/13 22:02	EMR		
Extraction, PCB	Completed			3510C	07/02/13 13:45	ADB		
Mercury Digestion	Completed			E245.1	07/02/13 12:00	CCM		
Metal Digestion	Completed			3015A	07/15/13 11:00	PER		
Inorganics								
Ammonia-N (Undistilled)	0.06	mg/L	0.02	4500-NH3 D	07/03/13 13:32	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	06/28/13 19:00	ASB		
TBOD5	Not detected	mg/L	1	10360	07/03/13 18:00	ASB		
Total Phosphorus	0.02	mg/L	0.01	4500-PE	07/02/13 17:28	MJC	7723-14-0	
Total Suspended Solids	3	mg/L	1	2540 D	07/03/13 12:30	ASB		
Metals								
Arsenic	0.008	mg/L	0.002	E200.8	07/15/13 13:14	PER	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	07/15/13 13:14	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	07/15/13 13:14	PER	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	07/15/13 13:14	PER	7440-50-8	
Lead	Not detected	mg/L	0.003	E200.8	07/15/13 13:14	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	07/02/13 16:58	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	07/15/13 13:14	PER	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	07/15/13 13:14	PER	7440-22-4	
Zinc	0.017	mg/L	0.005	E200.8	07/15/13 13:14	PER	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	07/02/13 13:46	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	120-12-7	

Lab Sample ID: S57071.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (062813)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzidine	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	92-87-5	
Benzo(a)anthracene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	20	E625M	07/10/13 20:09	PL	51-28-5	X
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	129-00-0	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S57071.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (062813)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	88-06-2	
Phenanthrene	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	07/10/13 20:09	PL	01746-01-6	

Lab Sample ID: S57071.05
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (062813)
Collected Date/Time: 06/28/2013 11:00
Matrix: Water
COC Reference: BC062813.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.2	IR
1	32oz Glass	HCL	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/10/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/03/13 12:38	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	07/08/13 12:52	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/09/13 14:42	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/09/13 14:42	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57071.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (062813)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/09/13 14:42	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/09/13 14:42	WAT	95-47-6	

Lab Sample ID: S57071.06
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (062813)
Collected Date/Time: 06/28/2013 11:10
Matrix: Water
COC Reference: BC062813.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.2	IR
1	32oz Glass	HCL	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/10/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/03/13 12:46	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	07/08/13 12:52	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/09/13 15:02	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/09/13 15:02	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57071.06 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (062813)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/09/13 15:02	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/09/13 15:02	WAT	95-47-6	

Lab Sample ID: S57071.07
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (062813)
Collected Date/Time: 06/28/2013 11:20
Matrix: Water
COC Reference: BC062813.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.2	IR
1	32oz Glass	HCL	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/10/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/03/13 12:48	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	07/08/13 12:52	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/09/13 15:22	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/09/13 15:22	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57071.07 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (062813)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/09/13 15:22	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/09/13 15:22	WAT	95-47-6	

Lab Sample ID: S57071.08
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (062813)
Collected Date/Time: 06/28/2013 11:30
Matrix: Water
COC Reference: BC062813.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.2	IR
1	32oz Glass	HCL	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/10/13 10:15	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/03/13 12:50	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	07/08/13 12:52	ADB		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/09/13 15:42	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/09/13 15:42	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57071.08 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (062813)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/09/13 15:42	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/09/13 15:42	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC062813.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive	Fax:
City: Brighton, State: MI, Zip:	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Preservative	D	A	E	D	C	B	E	E		
# of Containers	1	1	1	1	1	3	2	2		
Container Information	3	4	10	10	3	1	2	2		

KEYS

Preservation Key:
A. H_2SO_4
B. HCL
C. NaOH
D. HNO_3
E. None
F.
G.
H.

Container Information Key:
1. 40 mL VOA
2. 1 L Amber
3. 125 mL Plastic
4. 250 mL Plastic
5. 500 mL Plastic
6. 1 L Plastic
7. 2 oz. Glass
8. 4 oz. Glass
9. 8 oz. Glass
10. Other

Matrix Key:
SE = Sediment, A = Air, L= Liquid, S= Solids, NL = NAPL / Oil, SW = Surface, Wipe

57071

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes	625 SVOCs TTO	608 PCBs			REMARKS
.04 AOI-09B-GAC-EFF-COMPOSITE (062813)	6/28/13	1230	x		w	x	x	x				x	x			Run BOD only, hold remaining for Future Analysis
.05 AOI-09B-GAC-EFF-GRAB01 (062813)	6/28/13	1100		x	w				x	x	x					Hold for Future Analysis
.06 AOI-09B-GAC-EFF-GRAB02 (062813)	6/28/13	1110		x	w				x	x	x					Hold for Future Analysis
.07 AOI-09B-GAC-EFF-GRAB03 (062813)	6/28/13	1120		x	w				x	x	x					Hold for Future Analysis
.08 AOI-09B-GAC-EFF-GRAB04 (062813)	6/28/13	1130		x	w				x	x	x					Hold for Future Analysis

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS).
email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com;
trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Barbara Ball
☒ Cooler packed with ice (✓)		Signature: [signature]	Signature: [signature]	Signature: Barbara Ball
Specify Turnaround Requirements:	Sample Receipt:	Firm: ARCADIS	Firm: Merit	Firm: Merit
Fed-Ex Tracking #:	Condition/Cooler Temp: 5.2	Date/Time: 6/28/13 1330	Date/Time: 6-28-13 1330	Date/Time: 6/28/13 14:30

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S57071.01(01)
Generated on 07/16/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S57071.01-S57071.09
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 06/28/2013 14:30
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-10)
Prep Batch Summary (Pages 11-12)
Surrogates per Lab Sample (Pages 13-21)
Surrogates per QC Sample (Pages 22-28)
Batch QC Results (Pages 29-46)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

Lab Sample ID: S57071.04

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (062813)

Collected Date/Time: 06/28/2013 12:30

Matrix: Water

COC Reference: BC062813.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	07/03/13 13:32	AMN130703	AMN130703	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	07/02/13 17:28	PHS130702	PHS130702	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	07/03/13 12:30	TSS130703	TSS130703	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Cadmium	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Chromium	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Copper	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Lead	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Mercury	E245.1	07/02/13 16:58	HG2-13-0702A	HGD-070213-2	No	LCS/BLK/MS/MSD
Nickel	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Silver	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Zinc	E200.8	07/15/13 13:14	MT2-13-0715A	MTD-071513-4	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	07/02/13 13:46	F130702	PA130702W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	07/10/13 20:09	H130710	SF130701W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57071.05

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (062813)

Collected Date/Time: 06/28/2013 11:00

Matrix: Water

COC Reference: BC062813.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:38	CN130703-W1	CN130703-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01	OGHEX130708W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/09/13 14:42	130709A3	VF130709W2	Yes	LCS/BLK/LCSD
Xylenes	E624	07/09/13 14:42	130709A3	VF130709W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57071.06

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (062813)

Collected Date/Time: 06/28/2013 11:10

Matrix: Water

COC Reference: BC062813.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:46	CN130703-W1	CN130703-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01	OGHEX130708W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/09/13 15:02	130709A3	VF130709W2	Yes	LCS/BLK/LCSD
Xylenes	E624	07/09/13 15:02	130709A3	VF130709W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57071.07

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (062813)

Collected Date/Time: 06/28/2013 11:20

Matrix: Water

COC Reference: BC062813.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:48	CN130703-W1	CN130703-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01	OGHEX130708W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/09/13 15:22	130709A3	VF130709W2	Yes	LCS/BLK/LCSD
Xylenes	E624	07/09/13 15:22	130709A3	VF130709W2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57071.08

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (062813)

Collected Date/Time: 06/28/2013 11:30

Matrix: Water

COC Reference: BC062813.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:50	CN130703-W1	CN130703-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01	OGHEX130708W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/09/13 15:42	130709A3	VF130709W2	Yes	LCS/BLK/LCSD
Xylenes	E624	07/09/13 15:42	130709A3	VF130709W2	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130703

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	Ammonia-N (Undistilled)	4500-NH3 D	07/03/13 13:32	AMN130703

Inorganics, Prep Batch ID: CN130703-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.05	Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:38	CN130703-W1
S57071.06	Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:46	CN130703-W1
S57071.07	Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:48	CN130703-W1
S57071.08	Amenable Cyanide	335.4/4500-CN-G	07/03/13 12:50	CN130703-W1

Inorganics, Prep Batch ID: OGHEX130708W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.05	Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01
S57071.06	Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01
S57071.07	Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01
S57071.08	Oil & Grease n-Hexane Extract.	1664A	07/08/13 12:52	OGHEX130708W01

Inorganics, Prep Batch ID: PHS130702

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	Total Phosphorus	4500-PE	07/02/13 17:28	PHS130702

Inorganics, Prep Batch ID: TSS130703

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	Total Suspended Solids	2540 D	07/03/13 12:30	TSS130703

Metals, Prep Batch ID: HGD-070213-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	Mercury	E245.1	07/02/13 16:58	HG2-13-0702A

Metals, Prep Batch ID: MTD-071513-4

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	Arsenic	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Cadmium	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Chromium	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Copper	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Lead	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Nickel	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Silver	E200.8	07/15/13 13:14	MT2-13-0715A
S57071.04	Zinc	E200.8	07/15/13 13:14	MT2-13-0715A

Organics - PCBs/Pesticides, Prep Batch ID: PA130702W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	PCB	E608	07/02/13 13:46	F130702

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF130701W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.04	SVOCs, TTO List	E625M	07/10/13 20:09	H130710

Organics - Volatiles, Prep Batch ID: VF130709W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.01	BTEX, GC/MS	SW8260B	07/09/13 14:45	130709A5
S57071.02	BTEX, GC/MS	SW8260B	07/09/13 15:06	130709A5

Organics - Volatiles, Prep Batch ID: VF130709W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.05	VOCs, TTO List	E624	07/09/13 14:42	130709A3
S57071.05	Xylenes	E624	07/09/13 14:42	130709A3
S57071.06	VOCs, TTO List	E624	07/09/13 15:02	130709A3
S57071.06	Xylenes	E624	07/09/13 15:02	130709A3
S57071.07	VOCs, TTO List	E624	07/09/13 15:22	130709A3
S57071.07	Xylenes	E624	07/09/13 15:22	130709A3
S57071.08	VOCs, TTO List	E624	07/09/13 15:42	130709A3
S57071.08	Xylenes	E624	07/09/13 15:42	130709A3
S57071.09	BTEX, GC/MS	SW8260B	07/09/13 16:22	130709A3

Organics - Volatiles, Prep Batch ID: VF130711W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.03	VOCs, TTO List	E624	07/11/13 17:32	130711A3
S57071.03	Xylenes	E624	07/11/13 17:32	130711A3

Organics - Volatiles, Prep Batch ID: VG130709W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57071.03	TPH GRO (C6-C12)	SW8015M	07/09/13 14:51	130709A4

Lab Sample ID: S57071.04

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (062813)

Collected Date/Time: 06/28/2013 12:30

Matrix: Water

COC Reference: BC062813.2

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: F130702, Run Date: 07/02/2013 13:46, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**44.00**	34.1	137.1
DCBP		**63.50**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: H130710, Run Date: 07/10/2013 20:09, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**40.20**	10.0	110.0
2-Fluorobiphenyl		**65.50**	10.0	116.0
Nitrobenzene-D5		**57.30**	10.0	114.0
Phenol-D5		**33.10**	10.0	110.0
2,4,6-Tribromophenol		**61.50**	10.0	123.0
Terphenyl-D14		**75.90**	10.0	141.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57071.05

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (062813)

Collected Date/Time: 06/28/2013 11:00

Matrix: Water

COC Reference: BC062813.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130709A3, Run Date: 07/09/2013 14:42, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.20**	83.0	119.0
1,2-Dichloroethane-D4		**98.40**	77.0	121.0
Toluene-D8		**97.80**	86.0	118.0

Lab Sample ID: S57071.06

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (062813)

Collected Date/Time: 06/28/2013 11:10

Matrix: Water

COC Reference: BC062813.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130709A3, Run Date: 07/09/2013 15:02, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.40**	83.0	119.0
1,2-Dichloroethane-D4		**97.60**	77.0	121.0
Toluene-D8		**98.80**	86.0	118.0

Lab Sample ID: S57071.07

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (062813)

Collected Date/Time: 06/28/2013 11:20

Matrix: Water

COC Reference: BC062813.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130709A3, Run Date: 07/09/2013 15:22, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.60**	83.0	119.0
1,2-Dichloroethane-D4		**99.00**	77.0	121.0
Toluene-D8		**98.20**	86.0	118.0

Lab Sample ID: S57071.08

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (062813)

Collected Date/Time: 06/28/2013 11:30

Matrix: Water

COC Reference: BC062813.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130709A3, Run Date: 07/09/2013 15:42, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**104.40**	83.0	119.0
1,2-Dichloroethane-D4		**97.80**	77.0	121.0
Toluene-D8		**95.80**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130702W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: f13070210.slcs-w.01

Run in Batch: F130702, Run Date: 07/02/2013 12:29, Prep Date: 07/02/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**65.00**	34.1	137.1
DCBP		**75.50**	30.0	138.6

Blank (BLK)

Lab Sample ID: f13070209.sblk-w.01

Run in Batch: F130702, Run Date: 07/02/2013 12:18, Prep Date: 07/02/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**93.50**	34.1	137.1
DCBP		**103.90**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13070211.slcs-w.01d, Parent Sample ID: f13070210.slcs-w.01

Run in Batch: F130702, Run Date: 07/02/2013 12:51, Prep Date: 07/02/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**63.00**	34.1	137.1
DCBP		**73.70**	30.0	138.6

Organics - Semi-Volatiles, Prep Batch ID: SF130701W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: h130710.lcsw10a

Run in Batch: H130710, Run Date: 07/10/2013 16:14, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**53.00**	10.0	110.0
2-Fluorobiphenyl		**52.70**	10.0	116.0
Nitrobenzene-D5		**56.00**	10.0	114.0
Phenol-D5		**56.70**	10.0	110.0
2,4,6-Tribromophenol		**61.30**	10.0	123.0
Terphenyl-D14		**61.30**	10.0	141.0

Blank (BLK)

Lab Sample ID: h130710.blkw10a

Run in Batch: H130710, Run Date: 07/10/2013 15:16, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**56.10**	10.0	110.0
2-Fluorobiphenyl		**57.30**	10.0	116.0
Nitrobenzene-D5		**59.30**	10.0	114.0
Phenol-D5		**59.00**	10.0	110.0
2,4,6-Tribromophenol		**62.10**	10.0	123.0
Terphenyl-D14		**64.40**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: h130710.lcsdw10a, Parent Sample ID: h130710.lcsw10a

Run in Batch: H130710, Run Date: 07/10/2013 16:44, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**59.10**	10.0	110.0
2-Fluorobiphenyl		**59.90**	10.0	116.0
Nitrobenzene-D5		**63.70**	10.0	114.0
Phenol-D5		**62.60**	10.0	110.0
2,4,6-Tribromophenol		**66.90**	10.0	123.0
Terphenyl-D14		**64.30**	10.0	141.0

Organics - Volatiles, Prep Batch ID: VF130709W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130709a5.lcsw09a

Run in Batch: 130709A5, Run Date: 07/09/2013 12:40, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**110.00**	83.0	119.0
1,2-Dichloroethane-D4		**95.20**	77.0	121.0
Toluene-D8		**100.00**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130709a5.blkw09a

Run in Batch: 130709A5, Run Date: 07/09/2013 14:24, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.20**	83.0	119.0
1,2-Dichloroethane-D4		**97.20**	77.0	121.0
Toluene-D8		**97.60**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130709a5.5709010m, Parent Sample ID: S57090.09

Run in Batch: 130709A5, Run Date: 07/09/2013 20:59, Prep Date: 07/09/2013, Matrix: WW, Dilution: 200

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**109.20**	83.0	119.0
1,2-Dichloroethane-D4		**94.60**	77.0	121.0
Toluene-D8		**101.00**	86.0	118.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130709a5.5709011n, Parent Sample ID: 130709a5.5709010m

Run in Batch: 130709A5, Run Date: 07/09/2013 21:20, Prep Date: 07/09/2013, Matrix: WW, Dilution: 200

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**108.40**	83.0	119.0
1,2-Dichloroethane-D4		**100.00**	77.0	121.0
Toluene-D8		**100.40**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130709a5.lcsw09b, Parent Sample ID: 130709a5.lcsw09a

Run in Batch: 130709A5, Run Date: 07/09/2013 13:01, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**108.40**	83.0	119.0
1,2-Dichloroethane-D4		**96.40**	77.0	121.0
Toluene-D8		**100.80**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF130709W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130709a3.lcsw09a

Run in Batch: 130709A3, Run Date: 07/09/2013 12:40, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**104.60**	83.0	119.0
1,2-Dichloroethane-D4		**91.20**	77.0	121.0
Toluene-D8		**100.00**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130709a3.blkw09a

Run in Batch: 130709A3, Run Date: 07/09/2013 14:20, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**94.20**	83.0	119.0
1,2-Dichloroethane-D4		**96.00**	77.0	121.0
Toluene-D8		**99.20**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130709a3.lcsw09b, Parent Sample ID: 130709a3.lcsw09a

Run in Batch: 130709A3, Run Date: 07/09/2013 13:00, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.80**	83.0	119.0
1,2-Dichloroethane-D4		**96.40**	77.0	121.0
Toluene-D8		**99.40**	86.0	118.0

Organics - Volatiles, Prep Batch ID: VF130711W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130711a3.lcsw11a

Run in Batch: 130711A3, Run Date: 07/11/2013 11:33, Prep Date: 07/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.00**	83.0	119.0
1,2-Dichloroethane-D4		**93.20**	77.0	121.0
Toluene-D8		**98.80**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130711a3.blkt11a

Run in Batch: 130711A3, Run Date: 07/11/2013 17:12, Prep Date: 07/11/2013, Matrix: WW, Dilution: 50

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.60**	83.0	119.0
1,2-Dichloroethane-D4		**106.40**	77.0	121.0
Toluene-D8		**98.60**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130711a3.blkw11a

Run in Batch: 130711A3, Run Date: 07/11/2013 12:52, Prep Date: 07/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.20**	83.0	119.0
1,2-Dichloroethane-D4		**99.40**	77.0	121.0
Toluene-D8		**100.60**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130711a3.5710605m, Parent Sample ID: S57106.05

Run in Batch: 130711A3, Run Date: 07/11/2013 20:52, Prep Date: 07/11/2013, Matrix: WW, Dilution: 50

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.60**	83.0	119.0
1,2-Dichloroethane-D4		**113.40**	77.0	121.0
Toluene-D8		**102.40**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130711a3.5712101m, Parent Sample ID: S57121.01

Run in Batch: 130711A3, Run Date: 07/11/2013 20:32, Prep Date: 07/11/2013, Matrix: WW, Dilution: 50

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.60**	83.0	119.0
1,2-Dichloroethane-D4		**102.00**	77.0	121.0
Toluene-D8		**99.60**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 130711a3.5717405m, Parent Sample ID: S57174.04

Run in Batch: 130711A3, Run Date: 07/11/2013 21:12, Prep Date: 07/11/2013, Matrix: WW, Dilution: 200

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.40**	83.0	119.0
1,2-Dichloroethane-D4		**102.00**	77.0	121.0
Toluene-D8		**103.00**	86.0	118.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130711a3.5717406n, Parent Sample ID: 130711a3.5717405m

Run in Batch: 130711A3, Run Date: 07/11/2013 21:32, Prep Date: 07/11/2013, Matrix: WW, Dilution: 200

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.20**	83.0	119.0
1,2-Dichloroethane-D4		**104.00**	77.0	121.0
Toluene-D8		**100.60**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130711a3.lcsw11b, Parent Sample ID: 130711a3.lcsw11a

Run in Batch: 130711A3, Run Date: 07/11/2013 11:52, Prep Date: 07/11/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**106.00**	83.0	119.0
1,2-Dichloroethane-D4		**94.20**	77.0	121.0
Toluene-D8		**102.20**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VG130709W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130709a4.lcsg09a

Run in Batch: 130709A4, Run Date: 07/09/2013 12:40, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**90.80**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130709a4.blkw09a

Run in Batch: 130709A4, Run Date: 07/09/2013 13:34, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**93.10**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130709a4.lcsg09b, Parent Sample ID: 130709a4.lcsg09a

Run in Batch: 130709A4, Run Date: 07/09/2013 12:58, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
Toluene-D8		**91.30**	86.0	118.0

Inorganics, Prep Batch ID: AMN130703

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130703.LRB1

Run in Batch: AMN130703, Run Date: 07/03/2013 12:03, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130703.LCS1

Run in Batch: AMN130703, Run Date: 07/03/2013 12:34, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**101**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130703.MS1, Parent Sample ID: S57071.04

Run in Batch: AMN130703, Run Date: 07/03/2013 13:37, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**103**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130703.DP1, Parent Sample ID: S57065.01

Run in Batch: AMN130703, Run Date: 07/03/2013 12:57, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**1.6**	20

Inorganics, Prep Batch ID: CN130703-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130703-W1.LRB1

Run in Batch: CN130703-W1, Run Date: 07/03/2013 12:30, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130703-W1.LCS1

Run in Batch: CN130703-W1, Run Date: 07/03/2013 12:36, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**96**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130703-W1.MS1, Parent Sample ID: S57071.05

Run in Batch: CN130703-W1, Run Date: 07/03/2013 12:42, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**94**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130703-W1.MSD1, Parent Sample ID: CN130703-W1.MS1

Run in Batch: CN130703-W1, Run Date: 07/03/2013 12:44, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**93**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN130703-W1.DP1, Parent Sample ID: S57071.05

Run in Batch: CN130703-W1, Run Date: 07/03/2013 12:40, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130708W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX130708W01.LRB1

Run in Batch: OGHEX130708W01, Run Date: 07/08/2013 12:52, Prep Date: 07/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130708W01.LCS1

Run in Batch: OGHEX130708W01, Run Date: 07/08/2013 12:52, Prep Date: 07/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**90**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130708W01.LCS2

Run in Batch: OGHEX130708W01, Run Date: 07/08/2013 12:52, Prep Date: 07/08/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**88**	78	114

Inorganics, Prep Batch ID: PHS130702

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS130702.LRB1

Run in Batch: PHS130702, Run Date: 07/02/2013 13:12, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS130702.LRB2

Run in Batch: PHS130702, Run Date: 07/02/2013 13:17, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS130702.LCS1

Run in Batch: PHS130702, Run Date: 07/02/2013 13:23, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**93**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS130702.MS1, Parent Sample ID: S56992.01

Run in Batch: PHS130702, Run Date: 07/02/2013 17:59, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**106**	80	120

Matrix Spike (MS)

Lab Sample ID: PHS130702.MS2, Parent Sample ID: S57031.01

Run in Batch: PHS130702, Run Date: 07/02/2013 18:02, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**97**	80	120

Duplicate (DUP)

Lab Sample ID: PHS130702.DP1, Parent Sample ID: S57027.01

Run in Batch: PHS130702, Run Date: 07/02/2013 17:56, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**6.3**	20

Inorganics, Prep Batch ID: TSS130703

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130703.LRB1

Run in Batch: TSS130703, Run Date: 07/03/2013 12:30, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130703.LCS1

Run in Batch: TSS130703, Run Date: 07/03/2013 12:30, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**97**	69	120

Duplicate (DUP)

Lab Sample ID: TSS130703.DP1, Parent Sample ID: S57062.01

Run in Batch: TSS130703, Run Date: 07/03/2013 12:30, Prep Date: 07/03/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**10**	15

Metals, Prep Batch ID: HGD-070213-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0702A.026.LCS

Run in Batch: HG2-13-0702A, Run Date: 07/02/2013 16:12, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**99**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0702A.027.LRB

Run in Batch: HG2-13-0702A, Run Date: 07/02/2013 16:14, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0702A.038.MS, Parent Sample ID: S57049.09

Run in Batch: HG2-13-0702A, Run Date: 07/02/2013 16:35, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**97**	80	120

Matrix Spike (MS)

Lab Sample ID: HG2-13-0702A.055.MS, Parent Sample ID: S57090.02

Run in Batch: HG2-13-0702A, Run Date: 07/02/2013 17:10, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**99**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0702A.039.MSD, Parent Sample ID: HG2-13-0702A.038.MS

Run in Batch: HG2-13-0702A, Run Date: 07/02/2013 16:37, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**98**	80	120	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0702A.056.MSD, Parent Sample ID: HG2-13-0702A.055.MS

Run in Batch: HG2-13-0702A, Run Date: 07/02/2013 17:12, Prep Date: 07/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**99**	80	120	**0**	20

Metals, Prep Batch ID: MTD-071513-4

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT2-13-0715A.018.LCS

Run in Batch: MT2-13-0715A, Run Date: 07/15/2013 12:39, Prep Date: 07/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**103**	85	115
Cadmium		**102**	85	115
Chromium		**97**	85	115
Copper		**104**	85	115
Lead		**100**	85	115
Nickel		**100**	85	115
Silver		**104**	85	115
Zinc		**102**	85	115

Blank (BLK)

Lab Sample ID: MT2-13-0715A.020.LRB

Run in Batch: MT2-13-0715A, Run Date: 07/15/2013 12:44, Prep Date: 07/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.001	mg/L
Cadmium		**ND**	0.0001	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.001	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0001	mg/L
Zinc		**ND**	0.001	mg/L

Matrix Spike (MS)

Lab Sample ID: MT2-13-0715A.026.MS, Parent Sample ID: S57071.04

Run in Batch: MT2-13-0715A, Run Date: 07/15/2013 13:21, Prep Date: 07/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**105**	80	120
Cadmium		**101**	80	120
Chromium		**101**	80	120
Copper		**100**	80	120
Lead		**94**	80	120
Nickel		**102**	80	120
Silver		**97**	80	120
Zinc		**102**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0715A.027.MSD, Parent Sample ID: MT2-13-0715A.026.MS

Run in Batch: MT2-13-0715A, Run Date: 07/15/2013 13:24, Prep Date: 07/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**102**	80	120	**2**	20
Cadmium		**101**	80	120	**0**	20
Chromium		**99**	80	120	**2**	20
Copper		**99**	80	120	**1**	20
Lead		**94**	80	120	**0**	20
Nickel		**101**	80	120	**1**	20
Silver		**97**	80	120	**0**	20

Metals, Prep Batch ID: MTD-071513-4 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT2-13-0715A.027.MSD, Parent Sample ID: MT2-13-0715A.026.MS

Run in Batch: MT2-13-0715A, Run Date: 07/15/2013 13:24, Prep Date: 07/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Zinc		**104**	80	120	**1**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130702W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: f13070210.slcs-w.01

Run in Batch: F130702, Run Date: 07/02/2013 12:29, Prep Date: 07/02/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**91.10**	50.0	125.0

Blank (BLK)

Lab Sample ID: f13070209.sblk-w.01

Run in Batch: F130702, Run Date: 07/02/2013 12:18, Prep Date: 07/02/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13070211.slcs-w.01d, Parent Sample ID: f13070210.slcs-w.01

Run in Batch: F130702, Run Date: 07/02/2013 12:51, Prep Date: 07/02/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**88.62**	50.0	125.0	**2.8**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130701W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: h130710.lcsw10a

Run in Batch: H130710, Run Date: 07/10/2013 16:14, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Chlorophenol		**61.00**	14.0	123.0
4-Nitrophenol		**62.44**	10.0	110.0
Acenaphthene		**59.74**	26.4	118.0
4-Chloro-3-methylphenol		**66.32**	20.8	120.7
1,4-Dichlorobenzene		**55.08**	16.8	110.0
2,4-Dinitrotoluene		**68.66**	24.0	110.0
N-Nitrosodi-n-propylamine		**64.54**	31.3	119.6
Pentachlorophenol		**62.26**	10.0	110.9
Phenol		**65.24**	10.0	110.0
Pyrene		**63.28**	23.0	127.5
1,2,4-Trichlorobenzene		**54.66**	20.5	110.0

Blank (BLK)

Lab Sample ID: h130710.blkw10a

Run in Batch: H130710, Run Date: 07/10/2013 15:16, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene	*	**0.5**	0.5	ug/l
Benzo(b)fluoranthene	*	**0.6**	0.5	ug/l
Benzo(k)fluoranthene	*	**0.6**	0.5	ug/l
Benzo(ghi)perylene	*	**0.5**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene	*	**0.6**	0.5	ug/l
Dibenzo(ah)anthracene	*	**0.5**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate		**ND**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	2	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130701W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: h130710.blkw10a

Run in Batch: H130710, Run Date: 07/10/2013 15:16, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene	*	**0.5**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	0.5	ug/l
Pentachlorophenol		**ND**	10	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: h130710.lcsdw10a, Parent Sample ID: h130710.lcsw10a

Run in Batch: H130710, Run Date: 07/10/2013 16:44, Prep Date: 07/01/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Chlorophenol		**62.70**	14.0	123.0	**2.7**	30.0
4-Nitrophenol		**61.46**	10.0	110.0	**1.6**	30.0
Acenaphthene		**62.34**	26.4	118.0	**4.3**	30.0
4-Chloro-3-methylphenol		**66.34**	20.8	120.7	**0.0**	30.0
1,4-Dichlorobenzene		**57.48**	16.8	110.0	**4.3**	30.0
2,4-Dinitrotoluene		**68.52**	24.0	110.0	**0.2**	30.0
N-Nitrosodi-n-propylamine		**65.28**	31.3	119.6	**1.1**	30.0
Pentachlorophenol		**61.88**	10.0	110.9	**0.7**	30.0
Phenol		**65.58**	10.0	110.0	**0.5**	30.0
Pyrene		**62.98**	23.0	127.5	**0.5**	30.0
1,2,4-Trichlorobenzene		**58.26**	20.5	110.0	**6.4**	30.0

Organics - Volatiles, Prep Batch ID: VF130709W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130709a5.lcsw09a

Run in Batch: 130709A5, Run Date: 07/09/2013 12:40, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**106.66**	79.9	124.9
Chlorobenzene		**114.90**	79.2	122.7
1,1-Dichloroethene		**103.24**	69.6	139.4
Trichloroethene		**108.16**	79.7	124.2
Toluene		**109.34**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130709a5.blkw09a

Run in Batch: 130709A5, Run Date: 07/09/2013 14:24, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Benzene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Matrix Spike (MS)

Lab Sample ID: 130709a5.5709010m, Parent Sample ID: S57090.09

Run in Batch: 130709A5, Run Date: 07/09/2013 20:59, Prep Date: 07/09/2013, Matrix: WW, Dilution: 200

Analyte	Flags	% Rec	LCL	UCL
Benzene		**103.62**	79.9	124.9
Chlorobenzene		**111.74**	79.2	122.7
1,1-Dichloroethene		**98.96**	69.6	139.4
Trichloroethene		**101.38**	79.7	124.2
Toluene		**106.18**	79.8	124.5

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130709a5.5709011n, Parent Sample ID: 130709a5.5709010m

Run in Batch: 130709A5, Run Date: 07/09/2013 21:20, Prep Date: 07/09/2013, Matrix: WW, Dilution: 200

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**103.84**	79.9	124.9	**0.2**	30.0
Chlorobenzene		**112.92**	79.2	122.7	**1.1**	30.0
1,1-Dichloroethene		**96.08**	69.6	139.4	**3.0**	30.0
Trichloroethene		**108.12**	79.7	124.2	**5.2**	30.0
Toluene		**105.88**	79.8	124.5	**0.3**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130709a5.lcsw09b, Parent Sample ID: 130709a5.lcsw09a

Run in Batch: 130709A5, Run Date: 07/09/2013 13:01, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**104.62**	79.9	124.9	**1.9**	30.0
Chlorobenzene		**111.72**	79.2	122.7	**2.8**	30.0
1,1-Dichloroethene		**101.60**	69.6	139.4	**1.6**	30.0
Trichloroethene		**106.58**	79.7	124.2	**1.5**	30.0
Toluene		**106.98**	79.8	124.5	**2.2**	30.0

Organics - Volatiles, Prep Batch ID: VF130709W2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130709a3.lcsw09a

Run in Batch: 130709A3, Run Date: 07/09/2013 12:40, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**102.66**	79.9	124.9
Chlorobenzene		**106.40**	79.2	122.7
1,1-Dichloroethene		**99.68**	69.6	139.4
Trichloroethene		**100.82**	79.7	124.2
Toluene		**101.34**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130709a3.blkw09a

Run in Batch: 130709A3, Run Date: 07/09/2013 14:20, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130709W2 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130709a3.lcsw09b, Parent Sample ID: 130709a3.lcsw09a

Run in Batch: 130709A3, Run Date: 07/09/2013 13:00, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Benzene		**100.38**	79.9	124.9	**2.2**	30.0
Chlorobenzene		**102.10**	79.2	122.7	**4.1**	30.0
1,1-Dichloroethene		**101.04**	69.6	139.4	**1.4**	30.0
Trichloroethene		**99.60**	79.7	124.2	**1.2**	30.0
Toluene		**99.80**	79.8	124.5	**1.5**	30.0

Organics - Volatiles, Prep Batch ID: VF130711W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130711a3.lcsw11a

Run in Batch: 130711A3, Run Date: 07/11/2013 11:33, Prep Date: 07/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**96.46**	79.9	124.9
Chlorobenzene		**98.76**	79.2	122.7
1,1-Dichloroethene		**97.32**	69.6	139.4
Trichloroethene		**96.64**	79.7	124.2
Toluene		**96.86**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130711a3.blkt11a

Run in Batch: 130711A3, Run Date: 07/11/2013 17:12, Prep Date: 07/11/2013, Matrix: WW, Dilution: 50

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	500	ug/l
Acrylonitrile		**ND**	50	ug/l
Benzene		**ND**	50	ug/l
Bromodichloromethane		**ND**	50	ug/l
Bromoform		**ND**	50	ug/l
Bromomethane		**ND**	50	ug/l
Carbon tetrachloride		**ND**	50	ug/l
Chlorobenzene		**ND**	50	ug/l
Chloroethane		**ND**	50	ug/l
2-Chloroethylvinyl ether		**ND**	50	ug/l
Chloroform		**ND**	50	ug/l
Chloromethane		**ND**	50	ug/l
Dibromochloromethane		**ND**	50	ug/l
1,1-Dichloroethane		**ND**	50	ug/l
1,2-Dichloroethane		**ND**	50	ug/l
1,1-Dichloroethene		**ND**	50	ug/l
trans-1,2-Dichloroethene		**ND**	50	ug/l
1,2-Dichloropropane		**ND**	50	ug/l
cis-1,3-Dichloropropene		**ND**	50	ug/l
trans-1,3-Dichloropropene		**ND**	50	ug/l
Ethylbenzene		**ND**	50	ug/l
Methylene chloride		**ND**	50	ug/l
1,1,2,2-Tetrachloroethane		**ND**	50	ug/l
Tetrachloroethene		**ND**	50	ug/l
Toluene		**ND**	50	ug/l
1,1,1-Trichloroethane		**ND**	50	ug/l
1,1,2-Trichloroethane		**ND**	50	ug/l
Trichloroethene		**ND**	50	ug/l
Vinyl chloride		**ND**	50	ug/l
1,2-Dichlorobenzene		**ND**	50	ug/l
1,3-Dichlorobenzene		**ND**	50	ug/l
1,4-Dichlorobenzene		**ND**	50	ug/l
Trichlorofluoromethane		**ND**	50	ug/l
p,m-Xylene		**ND**	50	ug/l
o-Xylene		**ND**	50	ug/l

Organics - Volatiles, Prep Batch ID: VF130711W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Blank (BLK)

Lab Sample ID: 130711a3.blkw11a

Run in Batch: 130711A3, Run Date: 07/11/2013 12:52, Prep Date: 07/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Matrix Spike (MS)

Lab Sample ID: 130711a3.5710605m, Parent Sample ID: S57106.05

Run in Batch: 130711A3, Run Date: 07/11/2013 20:52, Prep Date: 07/11/2013, Matrix: WW, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Benzene		**100.54**	79.9	124.9
Chlorobenzene		**100.30**	79.2	122.7
1,1-Dichloroethene		**106.06**	69.6	139.4
Trichloroethene		**101.52**	79.7	124.2
Toluene		**100.92**	79.8	124.5

Organics - Volatiles, Prep Batch ID: VF130711W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Matrix Spike (MS)

Lab Sample ID: 130711a3.5712101m, Parent Sample ID: S57121.01

Run in Batch: 130711A3, Run Date: 07/11/2013 20:32, Prep Date: 07/11/2013, Matrix: WW, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Benzene		**98.42**	79.9	124.9
Chlorobenzene		**100.82**	79.2	122.7
1,1-Dichloroethene		**103.48**	69.6	139.4
Trichloroethene		**98.08**	79.7	124.2
Toluene		**99.04**	79.8	124.5

Matrix Spike (MS)

Lab Sample ID: 130711a3.5717405m, Parent Sample ID: S57174.04

Run in Batch: 130711A3, Run Date: 07/11/2013 21:12, Prep Date: 07/11/2013, Matrix: WW, Dilution: 200

Analyte	Flags	% Rec	LCL	UCL
Benzene	*	**75.78**	79.9	124.9
Chlorobenzene		**92.76**	79.2	122.7
1,1-Dichloroethene		**91.10**	69.6	139.4
Trichloroethene		**95.36**	79.7	124.2
Toluene	*	**-9.58**	79.8	124.5

Matrix Spike Duplicate (MSD)

Lab Sample ID: 130711a3.5717406n, Parent Sample ID: 130711a3.5717405m

Run in Batch: 130711A3, Run Date: 07/11/2013 21:32, Prep Date: 07/11/2013, Matrix: WW, Dilution: 200

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**83.46**	79.9	124.9	**6.9**	30.0
Chlorobenzene		**93.96**	79.2	122.7	**1.3**	30.0
1,1-Dichloroethene		**94.22**	69.6	139.4	**3.4**	30.0
Trichloroethene		**97.70**	79.7	124.2	**2.4**	30.0
Toluene	*	**20.94**	79.8	124.5	**17.3**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130711a3.lcsw11b, Parent Sample ID: 130711a3.lcsw11a

Run in Batch: 130711A3, Run Date: 07/11/2013 11:52, Prep Date: 07/11/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**100.56**	79.9	124.9	**4.2**	30.0
Chlorobenzene		**99.54**	79.2	122.7	**0.8**	30.0
1,1-Dichloroethene		**97.22**	69.6	139.4	**0.1**	30.0
Trichloroethene		**99.38**	79.7	124.2	**2.8**	30.0
Toluene		**101.66**	79.8	124.5	**4.8**	30.0

Organics - Volatiles, Prep Batch ID: VG130709W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130709a4.lcsg09a

Run in Batch: 130709A4, Run Date: 07/09/2013 12:40, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TPH GRO (C6-C10)		**87.52**	58.0	119.0
TPH GRO (C6-C12)		**87.55**	58.0	119.0

Blank (BLK)

Lab Sample ID: 130709a4.blkw09a

Run in Batch: 130709A4, Run Date: 07/09/2013 13:34, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TPH GRO (C6-C12)		**ND**	100	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130709a4.lcsg09b, Parent Sample ID: 130709a4.lcsg09a

Run in Batch: 130709A4, Run Date: 07/09/2013 12:58, Prep Date: 07/09/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TPH GRO (C6-C10)		**90.59**	58.0	119.0	**3.4**	30.0
TPH GRO (C6-C12)		**90.38**	58.0	119.0	**3.2**	30.0

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ENVIRONMENT

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
July 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

Date:
August 27, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during July 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of July 2013, 11,680.98 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flowrates on average were 354 cubic feet (2,648 gallons per day) at an average 15.6 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on July 17, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E625M,
- total mercury according to USEPA Method EPA 245.1, and
- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured) according to USEPA Method 4500HB.
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on July 17, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2). Dimethyl Phthalate showed detections within the composite sample. It was noted in the lab report this compound was also found in associated method blank.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10
June 28, 2013 - July 31, 2013	37,150.30 - 48,831.28	11,680.98

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.04	0.02	<	1	0.07	0.01	<	1	0.011	0.002	<	0.0005	<	0.005	<	0.004	<	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	7/21/2013		7/23/2013		7/19/2013		7/23/2013		7/24/2013		7/24/2013		7/24/2013		7/24/2013		7/24/2013	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	0.04		<		0.07		<		0.011		<		<		<		<	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	<	0.005	<	0.0005	0.013	0.005	8.0		3	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	7/18/2013		7/24/2013		7/24/2013		7/24/2013		7/17/2013		7/19/2013		7/22/2013		7/19/2013		7/19/2013	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		0	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		7/17/2013		7/19/2013		7/22/2013		7/19/2013		7/19/2013	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.7		0	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		7/17/2013		7/19/2013		7/22/2013		7/19/2013		7/19/2013	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.8		4	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		7/17/2013		7/19/2013		7/22/2013		7/19/2013		7/19/2013	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		<		0.013		7.9		3.5		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.001	<	Varies	Dimethyl Phthalate (0.02)	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	7/19/2013		7/19/2013		7/19/2013		7/22/2013		7/18/2013	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	7/19/2013		7/19/2013		7/19/2013		NA		NA	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	7/19/2013		7/19/2013		7/19/2013		NA		NA	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.001	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	7/19/2013		7/19/2013		7/19/2013		NA		NA	
Sample Date	7/17/2013		7/17/2013		7/17/2013		7/17/2013		7/17/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		0.02		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Revised Report

Report ID: S57278.01(02)
Generated on 07/31/2013
Replaces report S57278.01(01) generated on 07/24/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Trevor Swarthout, Erin Kozak

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S57278.01-S57278.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 07/17/2013
Submitted Date/Time: 07/17/2013 14:00
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

0 Result reported as non-detect

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S57278.01	AOI-09B-GAC-EFF-COMPOSITE (071713)	Water	07/17/2013 10:25
S57278.02	AOI-09B-GAC-EFF-GRAB01 (071713)	Water	07/17/2013 09:00
S57278.03	AOI-09B-GAC-EFF-GRAB02 (071713)	Water	07/17/2013 09:10
S57278.04	AOI-09B-GAC-EFF-GRAB03 (071713)	Water	07/17/2013 09:20
S57278.05	AOI-09B-GAC-EFF-GRAB04 (071713)	Water	07/17/2013 09:30

Lab Sample ID: S57278.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (071713)
Collected Date/Time: 07/17/2013 10:25
Matrix: Water
COC Reference: BC071713.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.6	IR
1	250ml Plastic	H2SO4	Yes	5.6	IR
1	1L Plastic	None	Yes	5.6	IR
4	1L Amber	None	Yes	5.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	07/19/13 19:55	EMR		
Extraction, PCB	Completed			3510C	07/18/13 11:37	ADB		
Mercury Digestion	Completed			E245.1	07/18/13 11:45	CCM		
Metal Digestion	Completed			3015A	07/24/13 09:00	PER		
Inorganics								
Ammonia-N (Undistilled)	0.04	mg/L	0.02	4500-NH3 D	07/21/13 20:35	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	07/18/13 13:00	ASB		
TBOD5	Not detected	mg/L	1	10360	07/23/13 16:30	ASB		
Total Phosphorus	0.07	mg/L	0.01	4500-PE	07/19/13 12:54	MJC	7723-14-0	
Total Suspended Solids	Not detected	mg/L	1	2540 D	07/23/13 20:15	ASB		
Metals								
Arsenic	0.011	mg/L	0.002	E200.8	07/24/13 12:35	PER	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	07/24/13 12:35	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	07/24/13 12:35	PER	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	07/24/13 12:35	PER	7440-50-8	
Lead	Not detected	mg/L	0.003	E200.8	07/24/13 12:35	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	07/18/13 16:37	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	07/24/13 12:35	PER	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	07/24/13 12:35	PER	7440-22-4	
Zinc	0.013	mg/L	0.005	E200.8	07/24/13 12:35	PER	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	07/18/13 14:36	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	92-87-5	

Lab Sample ID: S57278.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (071713)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzo(a)anthracene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	84-66-2	
Dimethyl phthalate	20	ug/L	10	E625M	07/22/13 15:40	PL	131-11-3	B
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	120-82-1	

B-Compound also found in associated method blank

Lab Sample ID: S57278.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (071713)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	88-06-2	
Phenanthrene	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	07/22/13 15:40	PL	01746-01-6	

Lab Sample ID: S57278.02
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (071713)
Collected Date/Time: 07/17/2013 09:00
Matrix: Water
COC Reference: BC071713.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.6	IR
1	32oz Glass	HCL	Yes	5.6	IR
3	40ml Glass	HCL	Yes	5.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/23/13 10:20	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/22/13 11:24	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	3	mg/L	1	1664A	07/19/13 18:01	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/19/13 16:33	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/19/13 16:33	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57278.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (071713)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/19/13 16:33	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/19/13 16:33	WAT	95-47-6	

Lab Sample ID: S57278.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (071713)
Collected Date/Time: 07/17/2013 09:10
Matrix: Water
COC Reference: BC071713.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.6	IR
1	32oz Glass	HCL	Yes	5.6	IR
3	40ml Glass	HCL	Yes	5.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/23/13 10:20	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/22/13 11:26	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	07/19/13 18:01	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/19/13 16:53	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/19/13 16:53	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57278.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (071713)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/19/13 16:53	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/19/13 16:53	WAT	95-47-6	

Lab Sample ID: S57278.04
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (071713)
Collected Date/Time: 07/17/2013 09:20
Matrix: Water
COC Reference: BC071713.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.6	IR
1	32oz Glass	HCL	Yes	5.6	IR
3	40ml Glass	HCL	Yes	5.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/23/13 10:20	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/22/13 11:28	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	07/19/13 18:01	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/19/13 17:13	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/19/13 17:13	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57278.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (071713)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/19/13 17:13	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/19/13 17:13	WAT	95-47-6	

Lab Sample ID: S57278.05
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (071713)
Collected Date/Time: 07/17/2013 09:30
Matrix: Water
COC Reference: BC071713.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.6	IR
1	32oz Glass	HCL	Yes	5.6	IR
3	40ml Glass	HCL	Yes	5.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	07/23/13 10:20	WAT		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	07/22/13 11:30	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	4	mg/L	1	1664A	07/19/13 18:58	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	07/19/13 17:33	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	07/19/13 17:33	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S57278.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (071713)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	07/19/13 17:33	WAT		
o-Xylene	Not detected	ug/L	1	E624	07/19/13 17:33	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC071713.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	# of Containers	Container Information	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes
						B	1	3								
						C	1	4								
						E	1	5								
						E	2	6								
						E	2	6								
						A	1	9								
						D	1	3								
						A	3	1								
57278 .01 AOI-09B-GAC-EFF-COMPOSITE (071713)	071713	1025	X		W				X	X	X	X	X			
.02 AOI-09B-GAC-EFF-GRAB01 (071713)	071713	0900		X	W									X	X	X
.03 AOI-09B-GAC-EFF-GRAB02 (071713)	071713	0910		X	W									X	X	X
.04 AOI-09B-GAC-EFF-GRAB03 (071713)	071713	0920		X	W									X	X	X
.05 AOI-09B-GAC-EFF-GRAB04 (071713)	071713	0930		X	W									X	X	X

PARAMETER ANALYSIS & METHOD

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 5.6	Date/Time: 7/17/13 12:00	Date/Time: 7-17-13 1200	Date/Time: 7-17-13 1400

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S57278.01(01)
Generated on 07/30/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S57278.01-S57278.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 07/17/2013 14:00
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-16)
Batch QC Results (Pages 17-30)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S57278.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (071713)

Collected Date/Time: 07/17/2013 10:25

Matrix: Water

COC Reference: BC071713.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	07/21/13 20:35	AMN130721	AMN130721	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	07/19/13 12:54	PHS130719	PHS130719	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	07/23/13 20:15	TSS130723	TSS130723	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Copper	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Lead	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	07/18/13 16:37	HG2-13-0718A	HGD-071813-1	No	LCS/BLK/MS/MSD
Nickel	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Silver	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	07/24/13 12:35	MT2-13-0724A	MTD-072413-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	07/18/13 14:36	A130718	PA130718W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	07/22/13 15:40	H130722	SF130719W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57278.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (071713)

Collected Date/Time: 07/17/2013 09:00

Matrix: Water

COC Reference: BC071713.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:24	CN130722-W1	CN130722-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:01	OGHEX130719W01	OGHEX130719W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/19/13 16:33	130719A3	VF130719W1	Yes	LCS/BLK/LCSD
Xylenes	E624	07/19/13 16:33	130719A3	VF130719W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57278.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (071713)

Collected Date/Time: 07/17/2013 09:10

Matrix: Water

COC Reference: BC071713.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:26	CN130722-W1	CN130722-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:01	OGHEX130719W01	OGHEX130719W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/19/13 16:53	130719A3	VF130719W1	Yes	LCS/BLK/LCSD
Xylenes	E624	07/19/13 16:53	130719A3	VF130719W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57278.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (071713)

Collected Date/Time: 07/17/2013 09:20

Matrix: Water

COC Reference: BC071713.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:28	CN130722-W1	CN130722-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:01	OGHEX130719W01	OGHEX130719W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/19/13 17:13	130719A3	VF130719W1	Yes	LCS/BLK/LCSD
Xylenes	E624	07/19/13 17:13	130719A3	VF130719W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57278.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (071713)

Collected Date/Time: 07/17/2013 09:30

Matrix: Water

COC Reference: BC071713.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:30	CN130722-W1	CN130722-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:58	OGHEX130719W01	OGHEX130719W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	07/19/13 17:33	130719A3	VF130719W1	Yes	LCS/BLK/LCSD
Xylenes	E624	07/19/13 17:33	130719A3	VF130719W1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130721

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	Ammonia-N (Undistilled)	4500-NH3 D	07/21/13 20:35	AMN130721

Inorganics, Prep Batch ID: CN130722-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.02	Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:24	CN130722-W1
S57278.03	Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:26	CN130722-W1
S57278.04	Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:28	CN130722-W1
S57278.05	Amenable Cyanide	335.4/4500-CN-G	07/22/13 11:30	CN130722-W1

Inorganics, Prep Batch ID: OGHEX130719W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.02	Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:01	OGHEX130719W01
S57278.03	Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:01	OGHEX130719W01
S57278.04	Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:01	OGHEX130719W01
S57278.05	Oil & Grease n-Hexane Extract.	1664A	07/19/13 18:58	OGHEX130719W01

Inorganics, Prep Batch ID: PHS130719

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	Total Phosphorus	4500-PE	07/19/13 12:54	PHS130719

Inorganics, Prep Batch ID: TSS130723

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	Total Suspended Solids	2540 D	07/23/13 20:15	TSS130723

Metals, Prep Batch ID: HGD-071813-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	Mercury	E245.1	07/18/13 16:37	HG2-13-0718A

Metals, Prep Batch ID: MTD-072413-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	Arsenic	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Cadmium	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Chromium	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Copper	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Lead	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Nickel	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Silver	E200.8	07/24/13 12:35	MT2-13-0724A
S57278.01	Zinc	E200.8	07/24/13 12:35	MT2-13-0724A

Organics - PCBs/Pesticides, Prep Batch ID: PA130718W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	PCB	E608	07/18/13 14:36	A130718

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF130719W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.01	SVOCs, TTO List	E625M	07/22/13 15:40	H130722

Organics - Volatiles, Prep Batch ID: VF130719W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57278.02	VOCs, TTO List	E624	07/19/13 16:33	130719A3
S57278.02	Xylenes	E624	07/19/13 16:33	130719A3
S57278.03	VOCs, TTO List	E624	07/19/13 16:53	130719A3
S57278.03	Xylenes	E624	07/19/13 16:53	130719A3
S57278.04	VOCs, TTO List	E624	07/19/13 17:13	130719A3
S57278.04	Xylenes	E624	07/19/13 17:13	130719A3
S57278.05	VOCs, TTO List	E624	07/19/13 17:33	130719A3
S57278.05	Xylenes	E624	07/19/13 17:33	130719A3

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57278.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (071713)

Collected Date/Time: 07/17/2013 10:25

Matrix: Water

COC Reference: BC071713.2

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: A130718, Run Date: 07/18/2013 14:36, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**61.80**	34.1	137.1
DCBP		**83.20**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: H130722, Run Date: 07/22/2013 15:40, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**45.60**	10.0	110.0
2-Fluorobiphenyl		**69.10**	10.0	116.0
Nitrobenzene-D5		**62.80**	10.0	114.0
Phenol-D5		**38.90**	10.0	110.0
2,4,6-Tribromophenol		**65.60**	10.0	123.0
Terphenyl-D14		**79.70**	10.0	141.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57278.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (071713)

Collected Date/Time: 07/17/2013 09:00

Matrix: Water

COC Reference: BC071713.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130719A3, Run Date: 07/19/2013 16:33, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**107.00**	83.0	119.0
1,2-Dichloroethane-D4		**108.20**	77.0	121.0
Toluene-D8		**100.60**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57278.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (071713)

Collected Date/Time: 07/17/2013 09:10

Matrix: Water

COC Reference: BC071713.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130719A3, Run Date: 07/19/2013 16:53, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**106.20**	83.0	119.0
1,2-Dichloroethane-D4		**107.40**	77.0	121.0
Toluene-D8		**102.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57278.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (071713)

Collected Date/Time: 07/17/2013 09:20

Matrix: Water

COC Reference: BC071713.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130719A3, Run Date: 07/19/2013 17:13, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**109.40**	77.0	121.0
Toluene-D8		**100.00**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57278.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (071713)

Collected Date/Time: 07/17/2013 09:30

Matrix: Water

COC Reference: BC071713.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130719A3, Run Date: 07/19/2013 17:33, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.40**	83.0	119.0
1,2-Dichloroethane-D4		**107.40**	77.0	121.0
Toluene-D8		**102.60**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130718W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13071807.slcs-w.01

Run in Batch: A130718, Run Date: 07/18/2013 12:32, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**76.00**	34.1	137.1
DCBP		**78.60**	30.0	138.6

Laboratory Control Sample (LCS)

Lab Sample ID: b13071904.slcs-w.01

Run in Batch: B130719, Run Date: 07/19/2013 13:53, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**99.10**	34.1	137.1
DCBP		**118.20**	30.0	138.6

Blank (BLK)

Lab Sample ID: a13071806.sblk-w.01

Run in Batch: A130718, Run Date: 07/18/2013 12:22, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**104.40**	34.1	137.1
DCBP		**84.70**	30.0	138.6

Blank (BLK)

Lab Sample ID: b13071906.sblk-w.01

Run in Batch: B130719, Run Date: 07/19/2013 14:47, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**97.50**	34.1	137.1
DCBP		**67.30**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13071808.slcs-w.01d, Parent Sample ID: a13071807.slcs-w.01

Run in Batch: A130718, Run Date: 07/18/2013 12:51, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**83.10**	34.1	137.1
DCBP		**81.10**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13071905.slcs-w.01d, Parent Sample ID: b13071904.slcs-w.01

Run in Batch: B130719, Run Date: 07/19/2013 14:28, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**83.50**	34.1	137.1
DCBP		**104.50**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF130719W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: h130722.lcsw22a

Run in Batch: H130722, Run Date: 07/22/2013 14:42, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**63.50**	10.0	110.0
2-Fluorobiphenyl		**63.90**	10.0	116.0
Nitrobenzene-D5		**69.40**	10.0	114.0
Phenol-D5		**65.80**	10.0	110.0
2,4,6-Tribromophenol		**70.20**	10.0	123.0
Terphenyl-D14		**69.80**	10.0	141.0

Blank (BLK)

Lab Sample ID: h130722.blkw22a

Run in Batch: H130722, Run Date: 07/22/2013 14:13, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**60.80**	10.0	110.0
2-Fluorobiphenyl		**62.60**	10.0	116.0
Nitrobenzene-D5		**67.00**	10.0	114.0
Phenol-D5		**62.00**	10.0	110.0
2,4,6-Tribromophenol		**68.70**	10.0	123.0
Terphenyl-D14		**69.90**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: h130722.lcsdw22a, Parent Sample ID: h130722.lcsw22a

Run in Batch: H130722, Run Date: 07/22/2013 15:11, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**57.00**	10.0	110.0
2-Fluorobiphenyl		**57.50**	10.0	116.0
Nitrobenzene-D5		**62.10**	10.0	114.0
Phenol-D5		**58.40**	10.0	110.0
2,4,6-Tribromophenol		**64.20**	10.0	123.0
Terphenyl-D14		**63.40**	10.0	141.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF130719W1

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130719a3.lcsw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 12:05, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**105.20**	83.0	119.0
1,2-Dichloroethane-D4		**101.60**	77.0	121.0
Toluene-D8		**103.40**	86.0	118.0

Laboratory Control Sample (LCS)

Lab Sample ID: 130719a3.lcsw19c

Run in Batch: 130719A3, Run Date: 07/19/2013 13:20, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**102.00**	83.0	119.0
1,2-Dichloroethane-D4		**108.40**	77.0	121.0
Toluene-D8		**107.00**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130719a3.blkw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 16:13, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.20**	83.0	119.0
1,2-Dichloroethane-D4		**104.80**	77.0	121.0
Toluene-D8		**100.20**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130719a3.lcsw19b, Parent Sample ID: 130719a3.lcsw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 12:23, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**106.20**	77.0	121.0
Toluene-D8		**105.40**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130719a3.lcsw19d, Parent Sample ID: 130719a3.lcsw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 14:42, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**106.60**	83.0	119.0
1,2-Dichloroethane-D4		**111.60**	77.0	121.0
Toluene-D8		**103.60**	86.0	118.0

Inorganics, Prep Batch ID: AMN130721

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130721.LRB1

Run in Batch: AMN130721, Run Date: 07/21/2013 13:00, Prep Date: 07/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130721.LCS1

Run in Batch: AMN130721, Run Date: 07/21/2013 13:53, Prep Date: 07/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**99**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130721.MS1, Parent Sample ID: S57253.01

Run in Batch: AMN130721, Run Date: 07/21/2013 14:50, Prep Date: 07/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**95**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130721.DP1, Parent Sample ID: S57237.02

Run in Batch: AMN130721, Run Date: 07/21/2013 14:23, Prep Date: 07/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**0.4**	20

Inorganics, Prep Batch ID: CN130722-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130722-W1.LRB1

Run in Batch: CN130722-W1, Run Date: 07/22/2013 11:00, Prep Date: 07/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130722-W1.LCS1

Run in Batch: CN130722-W1, Run Date: 07/22/2013 11:06, Prep Date: 07/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**97**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130722-W1.MS1, Parent Sample ID: S57251.01

Run in Batch: CN130722-W1, Run Date: 07/22/2013 11:14, Prep Date: 07/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**90**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130722-W1.MSD1, Parent Sample ID: CN130722-W1.MS1

Run in Batch: CN130722-W1, Run Date: 07/22/2013 11:16, Prep Date: 07/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**89**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN130722-W1.DP1, Parent Sample ID: S57251.01

Run in Batch: CN130722-W1, Run Date: 07/22/2013 11:12, Prep Date: 07/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130719W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX130719W01.LRB1

Run in Batch: OGHEX130719W01, Run Date: 07/19/2013 18:01, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130719W01.LCS1

Run in Batch: OGHEX130719W01, Run Date: 07/19/2013 18:01, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**88**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130719W01.LCS2

Run in Batch: OGHEX130719W01, Run Date: 07/19/2013 18:02, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**84**	78	114

Inorganics, Prep Batch ID: PHS130719

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS130719.LRB1

Run in Batch: PHS130719, Run Date: 07/19/2013 12:27, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS130719.LRB2

Run in Batch: PHS130719, Run Date: 07/19/2013 12:34, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS130719.LCS1

Run in Batch: PHS130719, Run Date: 07/19/2013 12:43, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**95**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS130719.MS1, Parent Sample ID: S57278.01

Run in Batch: PHS130719, Run Date: 07/19/2013 18:06, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**87**	80	120

Duplicate (DUP)

Lab Sample ID: PHS130719.DP1, Parent Sample ID: S57295.01

Run in Batch: PHS130719, Run Date: 07/19/2013 18:03, Prep Date: 07/19/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**0.5**	20

Inorganics, Prep Batch ID: TSS130723

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130723.LRB1

Run in Batch: TSS130723, Run Date: 07/23/2013 20:15, Prep Date: 07/23/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130723.LCS1

Run in Batch: TSS130723, Run Date: 07/23/2013 20:15, Prep Date: 07/23/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids	*	**142**	77	115

Duplicate (DUP)

Lab Sample ID: TSS130723.DP1, Parent Sample ID: S57271.06

Run in Batch: TSS130723, Run Date: 07/23/2013 20:15, Prep Date: 07/23/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**0**	15

Metals, Prep Batch ID: HGD-071813-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0718A.016.LCS

Run in Batch: HG2-13-0718A, Run Date: 07/18/2013 15:58, Prep Date: 07/18/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**106**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0718A.017.LRB

Run in Batch: HG2-13-0718A, Run Date: 07/18/2013 16:00, Prep Date: 07/18/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0718A.028.MS, Parent Sample ID: S57169.03

Run in Batch: HG2-13-0718A, Run Date: 07/18/2013 16:21, Prep Date: 07/18/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**102**	80	120

Matrix Spike (MS)

Lab Sample ID: HG2-13-0718A.038.MS, Parent Sample ID: S57183.02

Run in Batch: HG2-13-0718A, Run Date: 07/18/2013 16:41, Prep Date: 07/18/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**105**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0718A.029.MSD, Parent Sample ID: HG2-13-0718A.028.MS

Run in Batch: HG2-13-0718A, Run Date: 07/18/2013 16:23, Prep Date: 07/18/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**103**	80	120	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0718A.039.MSD, Parent Sample ID: HG2-13-0718A.038.MS

Run in Batch: HG2-13-0718A, Run Date: 07/18/2013 16:43, Prep Date: 07/18/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**105**	80	120	**1**	20

Metals, Prep Batch ID: MTD-072413-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT2-13-0724A.018.LCS

Run in Batch: MT2-13-0724A, Run Date: 07/24/2013 12:01, Prep Date: 07/24/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**104**	85	115
Cadmium		**100**	85	115
Chromium		**103**	85	115
Copper		**103**	85	115
Lead		**101**	85	115
Nickel		**104**	85	115
Silver		**100**	85	115
Zinc		**101**	85	115

Blank (BLK)

Lab Sample ID: MT2-13-0724A.020.LRB

Run in Batch: MT2-13-0724A, Run Date: 07/24/2013 12:05, Prep Date: 07/24/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.001	mg/L
Cadmium		**ND**	0.0002	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.001	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0002	mg/L
Zinc		**ND**	0.001	mg/L

Matrix Spike (MS)

Lab Sample ID: MT2-13-0724A.036.MS, Parent Sample ID: S57340.01

Run in Batch: MT2-13-0724A, Run Date: 07/24/2013 12:57, Prep Date: 07/24/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**106**	75	125
Cadmium		**99**	75	125
Chromium		**102**	75	125
Copper		**99**	75	125
Lead		**97**	75	125
Nickel		**99**	75	125
Silver		**96**	75	125
Zinc		**101**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-13-0724A.037.MSD, Parent Sample ID: MT2-13-0724A.036.MS

Run in Batch: MT2-13-0724A, Run Date: 07/24/2013 12:59, Prep Date: 07/24/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**106**	75	125	**0**	20
Cadmium		**99**	75	125	**0**	20
Chromium		**100**	75	125	**2**	20
Copper		**96**	75	125	**3**	20
Lead		**96**	75	125	**2**	20
Nickel		**97**	75	125	**2**	20
Silver		**96**	75	125	**0**	20

Metals, Prep Batch ID: MTD-072413-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT2-13-0724A.037.MSD, Parent Sample ID: MT2-13-0724A.036.MS

Run in Batch: MT2-13-0724A, Run Date: 07/24/2013 12:59, Prep Date: 07/24/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Zinc		**97**	75	125	**4**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130718W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13071807.slcs-w.01

Run in Batch: A130718, Run Date: 07/18/2013 12:32, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**102.56**	50.0	125.0

Laboratory Control Sample (LCS)

Lab Sample ID: b13071904.slcs-w.01

Run in Batch: B130719, Run Date: 07/19/2013 13:53, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
4,4'-DDD		**112.70**	60.0	120.0
4,4'-DDE		**90.60**	60.0	120.0
4,4'-DDT		**94.80**	60.0	120.0
Aldrin		**81.90**	60.0	120.0
Dieldrin		**103.70**	60.0	120.0
Endosulfan I		**94.40**	60.0	120.0
Endosulfan II		**98.60**	60.0	120.0
Endosulfan sulfate		**102.70**	60.0	120.0
Endrin		**102.10**	60.0	120.0
Endrin aldehyde		**97.30**	60.0	120.0
Endrin Ketone		**102.40**	60.0	120.0
Heptachlor		**85.80**	60.0	120.0
Heptachlor epoxide		**97.90**	60.0	120.0
Lindane		**88.20**	60.0	120.0
Methoxychlor		**116.70**	60.0	120.0
a-BHC		**83.80**	60.0	120.0
a-Chlordane		**93.70**	60.0	120.0
b-BHC		**96.40**	60.0	120.0
d-BHC		**95.80**	60.0	120.0
g-Chlordane		**92.40**	60.0	120.0

Blank (BLK)

Lab Sample ID: a13071806.sblk-w.01

Run in Batch: A130718, Run Date: 07/18/2013 12:22, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13071808.slcs-w.01d, Parent Sample ID: a13071807.slcs-w.01

Run in Batch: A130718, Run Date: 07/18/2013 12:51, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**109.34**	50.0	125.0	**6.4**	20.0

Organics - PCBs/Pesticides, Prep Batch ID: PA130718W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13071905.slcs-w.01d, Parent Sample ID: b13071904.slcs-w.01

Run in Batch: B130719, Run Date: 07/19/2013 14:28, Prep Date: 07/18/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
4,4'-DDD		**92.50**	60.0	120.0	**19.6**	20.0
4,4'-DDE		**75.10**	60.0	120.0	**18.7**	20.0
4,4'-DDT		**84.20**	60.0	120.0	**11.9**	20.0
Aldrin		**69.50**	60.0	120.0	**16.4**	20.0
Dieldrin		**89.40**	60.0	120.0	**14.8**	20.0
Endosulfan I		**79.80**	60.0	120.0	**16.7**	20.0
Endosulfan II		**82.90**	60.0	120.0	**17.3**	20.0
Endosulfan sulfate		**87.40**	60.0	120.0	**16.1**	20.0
Endrin		**88.20**	60.0	120.0	**14.6**	20.0
Endrin aldehyde		**84.30**	60.0	120.0	**14.3**	20.0
Endrin Ketone		**87.10**	60.0	120.0	**16.1**	20.0
Heptachlor		**73.40**	60.0	120.0	**15.6**	20.0
Heptachlor epoxide		**82.00**	60.0	120.0	**17.6**	20.0
Lindane		**74.50**	60.0	120.0	**16.8**	20.0
Methoxychlor		**103.60**	60.0	120.0	**11.9**	20.0
a-BHC		**70.60**	60.0	120.0	**17.2**	20.0
a-Chlordane		**78.20**	60.0	120.0	**18.0**	20.0
b-BHC		**82.10**	60.0	120.0	**16.1**	20.0
d-BHC		**81.00**	60.0	120.0	**16.8**	20.0
g-Chlordane		**77.70**	60.0	120.0	**17.4**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130719W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: h130722.lcsw22a

Run in Batch: H130722, Run Date: 07/22/2013 14:42, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Chlorophenol		**66.90**	14.0	123.0
4-Nitrophenol		**71.50**	10.0	110.0
Acenaphthene		**66.76**	26.4	118.0
4-Chloro-3-methylphenol		**69.30**	20.8	120.7
1,4-Dichlorobenzene		**63.76**	16.8	110.0
2,4-Dinitrotoluene		**72.46**	24.0	110.0
N-Nitrosodi-n-propylamine		**68.66**	31.3	119.6
Pentachlorophenol		**63.62**	10.0	110.9
Phenol		**68.66**	10.0	110.0
Pyrene		**65.94**	23.0	127.5
1,2,4-Trichlorobenzene		**64.98**	20.5	110.0

Blank (BLK)

Lab Sample ID: h130722.blkw22a

Run in Batch: H130722, Run Date: 07/22/2013 14:13, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate	*	**5.0**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130719W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: h130722.blkw22a

Run in Batch: H130722, Run Date: 07/22/2013 14:13, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	0.5	ug/l
Pentachlorophenol		**ND**	1	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: h130722.lcsdw22a, Parent Sample ID: h130722.lcsw22a

Run in Batch: H130722, Run Date: 07/22/2013 15:11, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Chlorophenol		**57.02**	14.0	123.0	**15.9**	30.0
4-Nitrophenol		**61.68**	10.0	110.0	**14.7**	30.0
Acenaphthene		**57.16**	26.4	118.0	**15.5**	30.0
4-Chloro-3-methylphenol		**60.14**	20.8	120.7	**14.2**	30.0
1,4-Dichlorobenzene		**55.54**	16.8	110.0	**13.8**	30.0
2,4-Dinitrotoluene		**62.96**	24.0	110.0	**14.0**	30.0
N-Nitrosodi-n-propylamine		**58.68**	31.3	119.6	**15.7**	30.0
Pentachlorophenol		**57.94**	10.0	110.9	**9.3**	30.0
Phenol		**58.18**	10.0	110.0	**16.5**	30.0
Pyrene		**57.60**	23.0	127.5	**13.5**	30.0
1,2,4-Trichlorobenzene		**55.70**	20.5	110.0	**15.4**	30.0

Organics - Volatiles, Prep Batch ID: VF130719W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130719a3.lcsw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 12:05, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene	*	**132.98**	79.9	124.9
Chlorobenzene	*	**137.84**	79.2	122.7
1,1-Dichloroethene		**135.66**	69.6	139.4
Trichloroethene	*	**137.70**	79.7	124.2
Toluene	*	**137.42**	79.8	124.5

Laboratory Control Sample (LCS)

Lab Sample ID: 130719a3.lcsw19c

Run in Batch: 130719A3, Run Date: 07/19/2013 13:20, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**102.28**	79.9	124.9
Chlorobenzene		**104.76**	79.2	122.7
1,1-Dichloroethene		**103.14**	69.6	139.4
Trichloroethene		**105.84**	79.7	124.2
Toluene		**103.96**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130719a3.blkw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 16:13, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130719W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: 130719a3.blkw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 16:13, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130719a3.lcsw19b, Parent Sample ID: 130719a3.lcsw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 12:23, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene	*	**134.94**	79.9	124.9	**1.5**	30.0
Chlorobenzene	*	**136.54**	79.2	122.7	**0.9**	30.0
1,1-Dichloroethene		**134.96**	69.6	139.4	**0.5**	30.0
Trichloroethene	*	**139.44**	79.7	124.2	**1.3**	30.0
Toluene	*	**137.78**	79.8	124.5	**0.3**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130719a3.lcsw19d, Parent Sample ID: 130719a3.lcsw19a

Run in Batch: 130719A3, Run Date: 07/19/2013 14:42, Prep Date: 07/19/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**100.64**	79.9	124.9	**27.7**	30.0
Chlorobenzene		**104.62**	79.2	122.7	**27.4**	30.0
1,1-Dichloroethene		**103.32**	69.6	139.4	**27.1**	30.0
Trichloroethene		**103.32**	79.7	124.2	**28.5**	30.0
Toluene	*	**100.84**	79.8	124.5	**30.7**	30.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC071713.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	# of Containers	Container Information	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes
						B	1	3								
						C	1	4								
						E	1	5								
						E	2	6								
						E	2	6								
						A	1	9								
						D	1	3								
						A	3	1								
57278 .01 AOI-09B-GAC-EFF-COMPOSITE (071713)	071713	1025	X		W				X	X	X	X	X			
.02 AOI-09B-GAC-EFF-GRAB01 (071713)	071713	0900		X	W									X	X	X
.03 AOI-09B-GAC-EFF-GRAB02 (071713)	071713	0910		X	W									X	X	X
.04 AOI-09B-GAC-EFF-GRAB03 (071713)	071713	0920		X	W									X	X	X
.05 AOI-09B-GAC-EFF-GRAB04 (071713)	071713	0930		X	W									X	X	X

PARAMETER ANALYSIS & METHOD

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 5.6	Date/Time: 7/17/13 12:00	Date/Time: 7-17-13 1200	Date/Time: 7-17-13 1400

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
September 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

ENVIRONMENT

Date:
October 28, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during September 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of September 2013, 11,451.65 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flowrates on average were 382 cubic feet (2,855 gallons per day) at an average 15 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on September 24, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E625M,
- total mercury according to USEPA Method EPA 245.1, and

- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured) according to USEPA Method 4500HB.
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on September 24, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC

Edward L. Cote, PE

Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10
June 28, 2013 - July 31, 2013	37,150.30 - 48,831.28	11,680.98
July 31, 2013- August 31, 2013	48,831.28 - 64,419.10	15,587.82

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.04	0.02	1	1	0.26	0.01	<	1	0.026	0.002	<	0.0005	<	0.005	<	0.004	0.005	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	8/20/2013		8/19/2013		8/26/2013		8/20/2013		8/27/2013		8/27/2013		8/27/2013		8/28/2013		8/28/2013	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	0.04		1		0.26		<		0.026		<		<		<		0.005	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	<	0.005	<	0.0005	0.026	0.005	8.0		<	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	8/15/2013		8/28/2013		8/28/2013		8/27/2013		8/14/2013		8/15/2013		8/16/2013		8/22/2013		8/22/2013	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		8/14/2013		8/15/2013		8/16/2013		8/22/2013		8/22/2013	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.3		0	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		8/14/2013		8/15/2013		8/16/2013		8/22/2013		8/22/2013	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		0	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		8/14/2013		8/15/2013		8/16/2013		8/22/2013		8/22/2013	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		<		0.026		7.8		<		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.003	<	Varies	Dimethyl Phthalate (<)	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	8/22/2013		8/22/2013		8/22/2013		8/21/2013		8/19/2013	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	8/22/2013		8/22/2013		8/22/2013		NA		NA	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	8/22/2013		8/22/2013		8/22/2013		NA		NA	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	8/22/2013		8/22/2013		8/22/2013		NA		NA	
Sample Date	8/14/2013		8/14/2013		8/14/2013		8/14/2013		8/14/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		<		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Report ID: S57627.01(01)
Generated on 08/28/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Trevor Swarthout, Erin Kozak

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S57627.01-S57627.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 08/14/2013
Submitted Date/Time: 08/14/2013 15:10
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S57627.01	AOI-09B-GAC-EFF-COMPOSITE (081413)	Water	08/14/2013 13:00
S57627.02	AOI-09B-GAC-EFF-GRAB01 (081413)	Water	08/14/2013 10:30
S57627.03	AOI-09B-GAC-EFF-GRAB02 (081413)	Water	08/14/2013 10:40
S57627.04	AOI-09B-GAC-EFF-GRAB03 (081413)	Water	08/14/2013 10:50
S57627.05	AOI-09B-GAC-EFF-GRAB04 (081413)	Water	08/14/2013 11:00

Analytical Laboratory Report

Lab Sample ID: S57627.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (081413)
Collected Date/Time: 08/14/2013 13:00
Matrix: Water
COC Reference: BC081413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
4	1L Amber	None	Yes	5.4	IR
1	250ml Plastic	H2SO4	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR
1	1L Plastic	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	08/20/13 20:07	EMR		
Extraction, PCB	Completed			3510C	08/14/13 18:00	ADB		
Mercury Digestion	Completed			E245.1	08/15/13 12:00	CCM		
Metal Digestion	Completed			3015A	08/27/13 13:00	JRH		
Inorganics								
Ammonia-N (Undistilled)	0.04	mg/L	0.02	4500-NH3 D	08/20/13 12:55	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	08/14/13 19:45	ASB		
TBOD5	1	mg/L	1	10360	08/19/13 20:00	ASB		
Total Phosphorus	0.26	mg/L	0.01	4500-PE	08/26/13 13:44	MJC	7723-14-0	
Total Suspended Solids	Not detected	mg/L	1	2540 D	08/20/13 20:15	ASB		
Metals								
Arsenic	0.026	mg/L	0.002	E200.8	08/27/13 17:38	JRH	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/27/13 17:38	JRH	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	08/27/13 17:38	JRH	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	08/28/13 13:43	JRH	7440-50-8	
Lead	0.005	mg/L	0.003	E200.8	08/28/13 13:43	JRH	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/13 16:01	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	08/28/13 13:43	JRH	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	08/28/13 13:43	JRH	7440-22-4	
Zinc	0.026	mg/L	0.005	E200.8	08/27/13 17:38	JRH	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	08/19/13 11:30	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	92-87-5	

Lab Sample ID: S57627.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (081413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzo(a)anthracene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	88-06-2	

Lab Sample ID: S57627.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (081413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Phenanthrene	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	08/21/13 18:20	PL	01746-01-6	

Analytical Laboratory Report

Lab Sample ID: S57627.02
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (081413)
Collected Date/Time: 08/14/2013 10:30
Matrix: Water
COC Reference: BC081413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	NaOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	08/23/13 10:33	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	08/16/13 09:38	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	08/15/13 18:28	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	08/22/13 15:41	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	08/22/13 15:41	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	106-46-7	

1-* Total CN- 57627.02 - .05 = < 0.005 mg/L

Lab Sample ID: S57627.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (081413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	08/22/13 15:41	WAT		
o-Xylene	Not detected	ug/L	1	E624	08/22/13 15:41	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S57627.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (081413)
Collected Date/Time: 08/14/2013 10:40
Matrix: Water
COC Reference: BC081413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	NaOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	08/23/13 10:33	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	08/16/13 09:46	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	08/15/13 18:28	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	08/22/13 16:02	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	08/22/13 16:02	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	75-69-4	

Lab Sample ID: S57627.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (081413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	08/22/13 16:02	WAT		
o-Xylene	Not detected	ug/L	1	E624	08/22/13 16:02	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S57627.04
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (081413)
Collected Date/Time: 08/14/2013 10:50
Matrix: Water
COC Reference: BC081413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	NaOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	08/23/13 10:33	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	08/16/13 09:48	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	0	mg/L	1	1664A	08/15/13 18:51	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	08/22/13 16:23	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	08/22/13 16:23	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	75-69-4	

Lab Sample ID: S57627.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (081413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	08/22/13 16:23	WAT		
o-Xylene	Not detected	ug/L	1	E624	08/22/13 16:23	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S57627.05
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (081413)
Collected Date/Time: 08/14/2013 11:00
Matrix: Water
COC Reference: BC081413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.4	IR
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	NaOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	>2	STD Units		N/A	08/23/13 10:33	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	08/16/13 09:50	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	0	mg/L	1	1664A	08/15/13 18:51	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	08/22/13 16:44	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	08/22/13 16:44	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	75-69-4	

Lab Sample ID: S57627.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (081413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	08/22/13 16:44	WAT		
o-Xylene	Not detected	ug/L	1	E624	08/22/13 16:44	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC081413.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix
57027					
.01 AOI-09B-GAC-EFF-COMPOSITE (081413)	081413	1300	X		W
.02 AOI-09B-GAC-EFF-GRAB01 (081413)	081413	1030		X	W
.03 AOI-09B-GAC-EFF-GRAB02 (081413)	081413	1040		X	W
.04 AOI-09B-GAC-EFF-GRAB03 (081413)	081413	1050		X	W
.05 AOI-09B-GAC-EFF-GRAB04 (081413)	081413	1100		X	W

Preservative	B	C	E	E	E	A	D	A	
# of Containers	1	1	1	2	2	1	1	3	
Container Information	3	4	5	6	6	9	3	1	

PARAMETER ANALYSIS & METHOD

	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes	
.01 AOI-09B-GAC-EFF-COMPOSITE (081413)	X	X	X	X	X				24 hr Composite 8/13/13 to 8/14/13
.02 AOI-09B-GAC-EFF-GRAB01 (081413)						X	X	X	
.03 AOI-09B-GAC-EFF-GRAB02 (081413)						X	X	X	
.04 AOI-09B-GAC-EFF-GRAB03 (081413)						X	X	X	
.05 AOI-09B-GAC-EFF-GRAB04 (081413)						X	X	X	

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt

Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact
☑ Cooler packed with ice (✓)	
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 5.4

Relinquished By	Received By	Laboratory Received By
Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
Signature:	Signature:	Signature: Tabitha Faust
Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Date/Time: 8/14/13 14:00	Date/Time: 8.14.13 1400	Date/Time: 8-14-13 1570

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S57627.01(01)
Generated on 08/29/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S57627.01-S57627.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 08/14/2013 15:10
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-16)
Batch QC Results (Pages 17-33)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S57627.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (081413)

Collected Date/Time: 08/14/2013 13:00

Matrix: Water

COC Reference: BC081413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	08/20/13 12:55	AMN130820	AMN130820	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	08/26/13 13:44	PHS130826	PHS130826	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	08/20/13 20:15	TSS130820A	TSS130820A	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	08/27/13 17:38	MT3-13-0827C	MTD-082713-7	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/27/13 17:38	MT3-13-0827C	MTD-082713-7	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/27/13 17:38	MT3-13-0827C	MTD-082713-7	No	LCS/BLK/MS/MSD
Copper	E200.8	08/28/13 13:43	MT3-13-0828A	MTD-082713-7	No	LCS/BLK/MS/MSD
Lead	E200.8	08/28/13 13:43	MT3-13-0828A	MTD-082713-7	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/13 16:01	HG2-13-0815A	HGD-081513-1	No	LCS/BLK/MS/MSD
Nickel	E200.8	08/28/13 13:43	MT3-13-0828A	MTD-082713-7	No	LCS/BLK/MS/MSD
Silver	E200.8	08/28/13 13:43	MT3-13-0828A	MTD-082713-7	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/27/13 17:38	MT3-13-0827C	MTD-082713-7	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	08/19/13 11:30	F130819	PA130814W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	08/21/13 18:20	Z130821B	SF130820W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57627.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (081413)

Collected Date/Time: 08/14/2013 10:30

Matrix: Water

COC Reference: BC081413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:38	CN130816-W1	CN130816-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:28	OGHEX130815W02	OGHEX130815W02	No	LCS
Organics - Volatiles						
VOCs, TTO List	E624	08/22/13 15:41	130822A5	VF130822W1	Yes	LCS/BLK/LCSD
Xylenes	E624	08/22/13 15:41	130822A5	VF130822W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57627.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (081413)

Collected Date/Time: 08/14/2013 10:40

Matrix: Water

COC Reference: BC081413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:46	CN130816-W1	CN130816-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:28	OGHEX130815W02	OGHEX130815W02	No	LCS
Organics - Volatiles						
VOCs, TTO List	E624	08/22/13 16:02	130822A5	VF130822W1	Yes	LCS/BLK/LCSD
Xylenes	E624	08/22/13 16:02	130822A5	VF130822W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57627.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (081413)

Collected Date/Time: 08/14/2013 10:50

Matrix: Water

COC Reference: BC081413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:48	CN130816-W1	CN130816-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:51	OGHEX130815W02	OGHEX130815W02	No	LCS
Organics - Volatiles						
VOCs, TTO List	E624	08/22/13 16:23	130822A5	VF130822W1	Yes	LCS/BLK/LCSD
Xylenes	E624	08/22/13 16:23	130822A5	VF130822W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S57627.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (081413)

Collected Date/Time: 08/14/2013 11:00

Matrix: Water

COC Reference: BC081413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:50	CN130816-W1	CN130816-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:51	OGHEX130815W02	OGHEX130815W02	No	LCS
Organics - Volatiles						
VOCs, TTO List	E624	08/22/13 16:44	130822A5	VF130822W1	Yes	LCS/BLK/LCSD
Xylenes	E624	08/22/13 16:44	130822A5	VF130822W1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130820

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	Ammonia-N (Undistilled)	4500-NH3 D	08/20/13 12:55	AMN130820

Inorganics, Prep Batch ID: CN130816-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.02	Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:38	CN130816-W1
S57627.03	Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:46	CN130816-W1
S57627.04	Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:48	CN130816-W1
S57627.05	Amenable Cyanide	335.4/4500-CN-G	08/16/13 09:50	CN130816-W1

Inorganics, Prep Batch ID: OGHEX130815W02

Surrogates: No, QC Types: LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.02	Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:28	OGHEX130815W02
S57627.03	Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:28	OGHEX130815W02
S57627.04	Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:51	OGHEX130815W02
S57627.05	Oil & Grease n-Hexane Extract.	1664A	08/15/13 18:51	OGHEX130815W02

Inorganics, Prep Batch ID: PHS130826

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	Total Phosphorus	4500-PE	08/26/13 13:44	PHS130826

Inorganics, Prep Batch ID: TSS130820A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	Total Suspended Solids	2540 D	08/20/13 20:15	TSS130820A

Metals, Prep Batch ID: HGD-081513-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	Mercury	E245.1	08/15/13 16:01	HG2-13-0815A

Metals, Prep Batch ID: MTD-082713-7

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	Arsenic	E200.8	08/27/13 17:38	MT3-13-0827C
S57627.01	Cadmium	E200.8	08/27/13 17:38	MT3-13-0827C
S57627.01	Chromium	E200.8	08/27/13 17:38	MT3-13-0827C
S57627.01	Copper	E200.8	08/28/13 13:43	MT3-13-0828A
S57627.01	Lead	E200.8	08/28/13 13:43	MT3-13-0828A
S57627.01	Nickel	E200.8	08/28/13 13:43	MT3-13-0828A
S57627.01	Silver	E200.8	08/28/13 13:43	MT3-13-0828A
S57627.01	Zinc	E200.8	08/27/13 17:38	MT3-13-0827C

Organics - PCBs/Pesticides, Prep Batch ID: PA130814W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	PCB	E608	08/19/13 11:30	F130819

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.01	SVOCs, TTO List	E625M	08/21/13 18:20	Z130821B

Organics - Volatiles, Prep Batch ID: VF130822W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S57627.02	VOCs, TTO List	E624	08/22/13 15:41	130822A5
S57627.02	Xylenes	E624	08/22/13 15:41	130822A5
S57627.03	VOCs, TTO List	E624	08/22/13 16:02	130822A5
S57627.03	Xylenes	E624	08/22/13 16:02	130822A5
S57627.04	VOCs, TTO List	E624	08/22/13 16:23	130822A5
S57627.04	Xylenes	E624	08/22/13 16:23	130822A5
S57627.05	VOCs, TTO List	E624	08/22/13 16:44	130822A5
S57627.05	Xylenes	E624	08/22/13 16:44	130822A5

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57627.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (081413)

Collected Date/Time: 08/14/2013 13:00

Matrix: Water

COC Reference: BC081413.2

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: F130819, Run Date: 08/19/2013 11:30, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**75.20**	34.1	137.1
DCBP		**112.80**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z130821B, Run Date: 08/21/2013 18:20, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**31.40**	10.0	110.0
2-Fluorobiphenyl		**51.20**	10.0	116.0
Nitrobenzene-D5		**48.30**	10.0	114.0
Phenol-D5		**24.10**	10.0	110.0
2,4,6-Tribromophenol		**41.00**	10.0	123.0
Terphenyl-D14		**56.00**	10.0	141.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57627.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (081413)

Collected Date/Time: 08/14/2013 10:30

Matrix: Water

COC Reference: BC081413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130822A5, Run Date: 08/22/2013 15:41, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**95.40**	83.0	119.0
1,2-Dichloroethane-D4		**100.00**	77.0	121.0
Toluene-D8		**92.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57627.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (081413)

Collected Date/Time: 08/14/2013 10:40

Matrix: Water

COC Reference: BC081413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130822A5, Run Date: 08/22/2013 16:02, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**95.40**	83.0	119.0
1,2-Dichloroethane-D4		**101.20**	77.0	121.0
Toluene-D8		**92.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57627.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (081413)

Collected Date/Time: 08/14/2013 10:50

Matrix: Water

COC Reference: BC081413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130822A5, Run Date: 08/22/2013 16:23, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**94.00**	83.0	119.0
1,2-Dichloroethane-D4		**101.60**	77.0	121.0
Toluene-D8		**93.60**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S57627.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (081413)

Collected Date/Time: 08/14/2013 11:00

Matrix: Water

COC Reference: BC081413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130822A5, Run Date: 08/22/2013 16:44, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**92.00**	83.0	119.0
1,2-Dichloroethane-D4		**104.80**	77.0	121.0
Toluene-D8		**93.20**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130814W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: f13081410.slcs-w.01

Run in Batch: F130814, Run Date: 08/14/2013 10:37, Prep Date: 08/14/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**51.70**	34.1	137.1
DCBP		**79.30**	30.0	138.6

Blank (BLK)

Lab Sample ID: f13081409.sblk-w.01

Run in Batch: F130814, Run Date: 08/14/2013 10:26, Prep Date: 08/14/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**99.60**	34.1	137.1
DCBP		**106.70**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13081411.slcs-w.01d, Parent Sample ID: f13081410.slcs-w.01

Run in Batch: F130814, Run Date: 08/14/2013 10:47, Prep Date: 08/14/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**55.60**	34.1	137.1
DCBP		**76.90**	30.0	138.6

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 16:37, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**79.30**	10.0	110.0
2-Fluorobiphenyl		**80.70**	10.0	116.0
Nitrobenzene-D5		**86.10**	10.0	114.0
Phenol-D5		**81.40**	10.0	110.0
2,4,6-Tribromophenol		**75.40**	10.0	123.0
Terphenyl-D14		**85.60**	10.0	141.0

Blank (BLK)

Lab Sample ID: z130821b.blkw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 16:03, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**72.10**	10.0	110.0
2-Fluorobiphenyl		**75.70**	10.0	116.0
Nitrobenzene-D5		**78.40**	10.0	114.0
Phenol-D5		**74.40**	10.0	110.0
2,4,6-Tribromophenol		**67.20**	10.0	123.0
Terphenyl-D14		**78.40**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130821b.lcsdw21a, Parent Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 17:12, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**74.90**	10.0	110.0
2-Fluorobiphenyl		**75.50**	10.0	116.0
Nitrobenzene-D5		**78.90**	10.0	114.0
Phenol-D5		**76.40**	10.0	110.0
2,4,6-Tribromophenol		**70.20**	10.0	123.0
Terphenyl-D14		**79.10**	10.0	141.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF130822W1

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130822a5.lcsw22a

Run in Batch: 130822A5, Run Date: 08/22/2013 12:20, Prep Date: 08/22/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.80**	83.0	119.0
1,2-Dichloroethane-D4		**97.20**	77.0	121.0
Toluene-D8		**97.80**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130822a5.blkw22a

Run in Batch: 130822A5, Run Date: 08/22/2013 14:04, Prep Date: 08/22/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**91.20**	83.0	119.0
1,2-Dichloroethane-D4		**101.60**	77.0	121.0
Toluene-D8		**94.80**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130822a5.lcsw22b, Parent Sample ID: 130822a5.lcsw22a

Run in Batch: 130822A5, Run Date: 08/22/2013 12:41, Prep Date: 08/22/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.20**	83.0	119.0
1,2-Dichloroethane-D4		**102.40**	77.0	121.0
Toluene-D8		**100.60**	86.0	118.0

Inorganics, Prep Batch ID: AMN130820

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130820.LRB1

Run in Batch: AMN130820, Run Date: 08/20/2013 10:46, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130820.LCS1

Run in Batch: AMN130820, Run Date: 08/20/2013 11:22, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**102**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130820.MS1, Parent Sample ID: S57612.01

Run in Batch: AMN130820, Run Date: 08/20/2013 11:55, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**102**	80	120

Matrix Spike (MS)

Lab Sample ID: AMN130820.MS2, Parent Sample ID: S57627.01

Run in Batch: AMN130820, Run Date: 08/20/2013 12:59, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**97**	80	120

Matrix Spike (MS)

Lab Sample ID: AMN130820.MS3, Parent Sample ID: S57546.01

Run in Batch: AMN130820, Run Date: 08/20/2013 16:09, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**99**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130820.DP1, Parent Sample ID: S57621.05

Run in Batch: AMN130820, Run Date: 08/20/2013 11:40, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**1.2**	20

Duplicate (DUP)

Lab Sample ID: AMN130820.DP2, Parent Sample ID: S57546.01

Run in Batch: AMN130820, Run Date: 08/20/2013 16:01, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**1.8**	20

Inorganics, Prep Batch ID: CN130816-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130816-W1.LRB1

Run in Batch: CN130816-W1, Run Date: 08/16/2013 09:30, Prep Date: 08/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130816-W1.LCS1

Run in Batch: CN130816-W1, Run Date: 08/16/2013 09:36, Prep Date: 08/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**97**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130816-W1.MS1, Parent Sample ID: S57627.02

Run in Batch: CN130816-W1, Run Date: 08/16/2013 09:42, Prep Date: 08/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**91**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130816-W1.MSD1, Parent Sample ID: CN130816-W1.MS1

Run in Batch: CN130816-W1, Run Date: 08/16/2013 09:44, Prep Date: 08/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**92**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN130816-W1.DP1, Parent Sample ID: S57627.02

Run in Batch: CN130816-W1, Run Date: 08/16/2013 09:40, Prep Date: 08/16/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130815W02

Surrogates: No, QC Types: LCS

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130815W02.LCS1

Run in Batch: OGHEX130815W02, Run Date: 08/15/2013 18:28, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		**78**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130815W02.LCS2

Run in Batch: OGHEX130815W02, Run Date: 08/15/2013 18:28, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		**80**	78	114

Inorganics, Prep Batch ID: PHS130826

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS130826.LRB1

Run in Batch: PHS130826, Run Date: 08/26/2013 13:01, Prep Date: 08/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS130826.LRB2

Run in Batch: PHS130826, Run Date: 08/26/2013 13:07, Prep Date: 08/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS130826.LCS1

Run in Batch: PHS130826, Run Date: 08/26/2013 13:12, Prep Date: 08/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**105**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS130826.MS1, Parent Sample ID: S57624.01

Run in Batch: PHS130826, Run Date: 08/26/2013 18:23, Prep Date: 08/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**93**	80	120

Matrix Spike (MS)

Lab Sample ID: PHS130826.MS2, Parent Sample ID: S57627.01

Run in Batch: PHS130826, Run Date: 08/26/2013 18:26, Prep Date: 08/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**103**	80	120

Duplicate (DUP)

Lab Sample ID: PHS130826.DP1, Parent Sample ID: S57612.01

Run in Batch: PHS130826, Run Date: 08/26/2013 18:20, Prep Date: 08/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**7.7**	20

Inorganics, Prep Batch ID: TSS130820A

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130820A.LRB1

Run in Batch: TSS130820A, Run Date: 08/20/2013 20:15, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130820A.LCS1

Run in Batch: TSS130820A, Run Date: 08/20/2013 20:15, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**92**	77	115

Duplicate (DUP)

Lab Sample ID: TSS130820A.DP1, Parent Sample ID: S57621.05

Run in Batch: TSS130820A, Run Date: 08/20/2013 20:15, Prep Date: 08/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**8**	15

Metals, Prep Batch ID: HGD-081513-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0815A.015.LCS

Run in Batch: HG2-13-0815A, Run Date: 08/15/2013 15:29, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**105**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0815A.016.LRB

Run in Batch: HG2-13-0815A, Run Date: 08/15/2013 15:31, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0815A.027.MS, Parent Sample ID: S57493.06

Run in Batch: HG2-13-0815A, Run Date: 08/15/2013 15:53, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**100**	80	120

Matrix Spike (MS)

Lab Sample ID: HG2-13-0815A.034.MS, Parent Sample ID: S57624.04

Run in Batch: HG2-13-0815A, Run Date: 08/15/2013 16:07, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**86**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0815A.028.MSD, Parent Sample ID: HG2-13-0815A.027.MS

Run in Batch: HG2-13-0815A, Run Date: 08/15/2013 15:55, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**102**	80	120	**2**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0815A.035.MSD, Parent Sample ID: HG2-13-0815A.034.MS

Run in Batch: HG2-13-0815A, Run Date: 08/15/2013 16:09, Prep Date: 08/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**95**	80	120	**10**	20

Metals, Prep Batch ID: MTD-082713-7

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT3-13-0827C.017.LCS

Run in Batch: MT3-13-0827C, Run Date: 08/27/2013 17:19, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**104**	85	115
Cadmium		**99**	85	115
Chromium		**98**	85	115
Zinc		**101**	85	115

Laboratory Control Sample (LCS)

Lab Sample ID: MT3-13-0828A.018.LCS

Run in Batch: MT3-13-0828A, Run Date: 08/28/2013 13:31, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Copper		**100**	85	115
Lead		**102**	85	115
Nickel		**100**	85	115
Silver		**100**	85	115

Blank (BLK)

Lab Sample ID: MT3-13-0827C.019.LRB

Run in Batch: MT3-13-0827C, Run Date: 08/27/2013 17:27, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.0004	mg/L
Cadmium		**ND**	0.0001	mg/L
Chromium		**ND**	0.001	mg/L
Zinc		**ND**	0.001	mg/L

Blank (BLK)

Lab Sample ID: MT3-13-0828A.019.LRB

Run in Batch: MT3-13-0828A, Run Date: 08/28/2013 13:34, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Copper		**ND**	0.0008	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0002	mg/L

Matrix Spike (MS)

Lab Sample ID: MT3-13-0827C.030.MS, Parent Sample ID: S57644.01

Run in Batch: MT3-13-0827C, Run Date: 08/27/2013 18:12, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**102**	75	125
Cadmium		**101**	75	125
Chromium		**97**	75	125
Zinc		**99**	75	125

Metals, Prep Batch ID: MTD-082713-7 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike (MS)

Lab Sample ID: MT3-13-0827C.041.MS, Parent Sample ID: S57647.01

Run in Batch: MT3-13-0827C, Run Date: 08/27/2013 18:57, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**101**	75	125
Cadmium		**102**	75	125
Chromium		**96**	75	125
Zinc		**98**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-0828A.033.MS, Parent Sample ID: S57644.01

Run in Batch: MT3-13-0828A, Run Date: 08/28/2013 14:30, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Copper		**97**	75	125
Lead		**104**	75	125
Nickel		**96**	75	125
Silver		**99**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-0828A.044.MS, Parent Sample ID: S57647.01

Run in Batch: MT3-13-0828A, Run Date: 08/28/2013 15:13, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Copper		**105**	75	125
Lead		**98**	75	125
Nickel		**102**	75	125
Silver		**83**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-0827C.031.MSD, Parent Sample ID: MT3-13-0827C.030.MS

Run in Batch: MT3-13-0827C, Run Date: 08/27/2013 18:16, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**102**	75	125	**0**	20
Cadmium		**101**	75	125	**0**	20
Chromium		**97**	75	125	**0**	20
Zinc		**99**	75	125	**0**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-0827C.042.MSD, Parent Sample ID: MT3-13-0827C.041.MS

Run in Batch: MT3-13-0827C, Run Date: 08/27/2013 19:01, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**98**	75	125	**3**	20
Cadmium		**96**	75	125	**6**	20
Chromium		**94**	75	125	**3**	20
Zinc		**91**	75	125	**5**	20

Metals, Prep Batch ID: MTD-082713-7 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-0828A.034.MSD, Parent Sample ID: MT3-13-0828A.033.MS

Run in Batch: MT3-13-0828A, Run Date: 08/28/2013 14:33, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Copper		**97**	75	125	**0**	20
Lead		**104**	75	125	**0**	20
Nickel		**96**	75	125	**0**	20
Silver		**99**	75	125	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-0828A.045.MSD, Parent Sample ID: MT3-13-0828A.044.MS

Run in Batch: MT3-13-0828A, Run Date: 08/28/2013 15:16, Prep Date: 08/27/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Copper		**101**	75	125	**4**	20
Lead		**94**	75	125	**4**	20
Nickel		**94**	75	125	**4**	20
Silver		**79**	75	125	**5**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130814W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: f13081410.slcs-w.01

Run in Batch: F130814, Run Date: 08/14/2013 10:37, Prep Date: 08/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**100.50**	50.0	125.0

Blank (BLK)

Lab Sample ID: f13081409.sblk-w.01

Run in Batch: F130814, Run Date: 08/14/2013 10:26, Prep Date: 08/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13081411.slcs-w.01d, Parent Sample ID: f13081410.slcs-w.01

Run in Batch: F130814, Run Date: 08/14/2013 10:47, Prep Date: 08/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**90.66**	50.0	125.0	**10.3**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 16:37, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzaldehyde		**70.88**	35.6	137.2
Phenol		**75.24**	10.0	130.4
2-Chlorophenol		**74.84**	35.5	114.1
Bis(2-chloroethyl)ether		**73.50**	43.4	101.8
Bis(2-chloroisopropyl)ether		**73.76**	33.2	105.8
Acetophenone		**72.52**	48.3	105.9
Hexachloroethane		**69.58**	23.8	138.1
N-Nitrosodi-n-propylamine		**76.34**	35.8	109.3
Nitrobenzene		**76.12**	41.7	110.1
Isophorone		**87.64**	44.9	107.5
2-Nitrophenol		**70.18**	54.4	109.5
2,4-Dimethylphenol		**81.56**	43.4	114.9
Bis(2-chloroethoxy)methane		**75.40**	48.3	105.4
2,4-Dichlorophenol		**76.02**	57.7	115.6
Naphthalene		**71.54**	32.9	135.8
4-Chloroaniline		**56.92**	33.4	89.4
Hexachlorobutadiene		**66.30**	30.2	119.4
Caprolactam		**70.76**	10.0	113.1
4-Chloro-3-methylphenol		**78.92**	39.0	123.2
2-Methylnaphthalene		**72.06**	25.5	165.5
Hexachlorocyclopentadiene		**58.06**	10.0	271.8
2,4,6-Trichlorophenol		**72.64**	47.8	117.4
2,4,5-Trichlorophenol		**73.60**	48.9	118.8
1,1'-Biphenyl		**71.10**	49.7	110.7
2-Chloronaphthalene		**69.74**	50.3	108.3
2-Nitroaniline		**68.02**	53.4	119.9
Acenaphthylene		**75.76**	16.9	140.7
Dimethyl Phthalate		**74.56**	49.3	118.4
2,6-Dinitrotoluene		**70.60**	48.0	119.1
3-Nitroaniline		**58.92**	42.1	109.0
Acenaphthene		**71.74**	34.8	124.7
2,4-Dinitrophenol		**68.70**	10.0	171.2
Dibenzofuran		**72.26**	52.1	111.9
4-Nitrophenol		**69.78**	15.4	122.0
2,4-Dinitrotoluene		**66.18**	35.8	126.7
Fluorene		**71.92**	37.1	110.3
Diethyl phthalate		**75.08**	48.1	118.0
4-Chlorophenyl phenyl ether		**71.64**	52.2	116.5
4-Nitroaniline		**63.16**	45.8	119.7
4,6-Dinitro-2-methylphenol		**65.24**	18.7	149.0
N-Nitrosodiphenylamine		**72.72**	10.0	104.2
4-Bromophenyl phenyl ether		**70.36**	44.5	116.9
Hexachlorobenzene		**71.04**	45.2	118.5
Atrazine		**72.44**	52.5	143.1
Pentachlorophenol		**64.78**	10.3	139.1
Phenanthrene		**72.92**	31.8	123.3

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 16:37, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Anthracene		**72.54**	38.1	115.5
Carbazole		**66.42**	44.3	128.8
di-N-butyl phthalate		**80.64**	48.1	121.8
Fluoranthene		**73.80**	43.0	127.9
Pyrene		**77.80**	37.8	131.4
Butyl benzyl phthalate		**77.96**	47.4	121.6
Benzo(a)anthracene		**77.04**	40.7	115.5
3,3'-Dichlorobenzidine		**66.18**	37.0	97.2
Chrysene		**78.84**	28.9	136.7
Bis(2-ethylhexyl)phthalate		**80.26**	45.2	126.2
Di-n-octyl phthalate		**86.04**	45.7	123.1
Benzo(b)fluoranthene		**68.68**	43.3	119.4
Benzo(k)fluoranthene		**68.10**	41.2	116.9
Benzo(a)pyrene		**76.20**	51.2	133.4
Indeno(1,2,3-cd)pyrene		**80.36**	41.5	116.9
Dibenzo(ah)anthracene		**83.10**	33.8	132.4
Benzo(ghi)perylene		**72.00**	36.7	122.1
1-methylnaphthalene		**77.60**	10.0	133.6
1,4-Dichlorobenzene		**68.94**	20.7	137.7
1,2-Dichlorobenzene		**71.38**	9.6	166.2
o-Cresol		**76.12**	39.1	109.4
3,4-methylphenol		**71.75**	36.4	115.4
1,3-Dichlorobenzene		**69.44**	36.8	105.8
1,2-Diphenylhydrazine		**69.84**	40.2	136.4
1,2,4-Trichlorobenzene		**70.04**	32.2	118.4

Blank (BLK)

Lab Sample ID: z130821b.blkw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 16:03, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z130821b.blkw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 16:03, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate		**ND**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	1	ug/l
Pentachlorophenol		**ND**	0.5	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130821b.lcsdw21a, Parent Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 17:12, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzaldehyde		**65.96**	35.6	137.2	**7.2**	30.0
Phenol		**68.60**	10.0	130.4	**9.2**	30.0
2-Chlorophenol		**68.38**	35.5	114.1	**9.0**	30.0
Bis(2-chloroethyl)ether		**67.48**	43.4	101.8	**8.5**	30.0
Bis(2-chloroisopropyl)ether		**66.40**	33.2	105.8	**10.5**	30.0

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: z130821b.lcsdw21a, Parent Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 17:12, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Acetophenone		**65.36**	48.3	105.9	**10.4**	30.0
Hexachloroethane		**63.46**	23.8	138.1	**9.2**	30.0
N-Nitrosodi-n-propylamine		**69.00**	35.8	109.3	**10.1**	30.0
Nitrobenzene		**68.78**	41.7	110.1	**10.1**	30.0
Isophorone		**79.00**	44.9	107.5	**10.4**	30.0
2-Nitrophenol		**63.82**	54.4	109.5	**9.5**	30.0
2,4-Dimethylphenol		**73.16**	43.4	114.9	**10.9**	30.0
Bis(2-chloroethoxy)methane		**67.76**	48.3	105.4	**10.7**	30.0
2,4-Dichlorophenol		**68.88**	57.7	115.6	**9.9**	30.0
Naphthalene		**65.08**	32.9	135.8	**9.5**	30.0
4-Chloroaniline		**51.28**	33.4	89.4	**10.4**	30.0
Hexachlorobutadiene		**61.00**	30.2	119.4	**8.3**	30.0
Caprolactam		**64.70**	10.0	113.1	**8.9**	30.0
4-Chloro-3-methylphenol		**71.06**	39.0	123.2	**10.5**	30.0
2-Methylnaphthalene		**64.84**	25.5	165.5	**10.5**	30.0
Hexachlorocyclopentadiene		**50.38**	10.0	271.8	**14.2**	30.0
2,4,6-Trichlorophenol		**67.26**	47.8	117.4	**7.7**	30.0
2,4,5-Trichlorophenol		**67.36**	48.9	118.8	**8.9**	30.0
1,1'-Biphenyl		**65.38**	49.7	110.7	**8.4**	30.0
2-Chloronaphthalene		**64.26**	50.3	108.3	**8.2**	30.0
2-Nitroaniline		**63.18**	53.4	119.9	**7.4**	30.0
Acenaphthylene		**69.74**	16.9	140.7	**8.3**	30.0
Dimethyl Phthalate		**68.94**	49.3	118.4	**7.8**	30.0
2,6-Dinitrotoluene		**65.06**	48.0	119.1	**8.2**	30.0
3-Nitroaniline		**54.24**	42.1	109.0	**8.3**	30.0
Acenaphthene		**65.72**	34.8	124.7	**8.8**	30.0
2,4-Dinitrophenol		**66.76**	10.0	171.2	**2.9**	30.0
Dibenzofuran		**67.26**	52.1	111.9	**7.2**	30.0
4-Nitrophenol		**63.98**	15.4	122.0	**8.7**	30.0
2,4-Dinitrotoluene		**61.14**	35.8	126.7	**7.9**	30.0
Fluorene		**65.56**	37.1	110.3	**9.3**	30.0
Diethyl phthalate		**68.48**	48.1	118.0	**9.2**	30.0
4-Chlorophenyl phenyl ether		**66.18**	52.2	116.5	**7.9**	30.0
4-Nitroaniline		**58.24**	45.8	119.7	**8.1**	30.0
4,6-Dinitro-2-methylphenol		**60.54**	18.7	149.0	**7.5**	30.0
N-Nitrosodiphenylamine		**65.72**	10.0	104.2	**10.1**	30.0
4-Bromophenyl phenyl ether		**64.96**	44.5	116.9	**8.0**	30.0
Hexachlorobenzene		**63.52**	45.2	118.5	**11.2**	30.0
Atrazine		**64.22**	52.5	143.1	**12.0**	30.0
Pentachlorophenol		**58.72**	10.3	139.1	**9.8**	30.0
Phenanthrene		**65.26**	31.8	123.3	**11.1**	30.0
Anthracene		**65.70**	38.1	115.5	**9.9**	30.0
Carbazole		**60.04**	44.3	128.8	**10.1**	30.0
di-N-butyl phthalate		**73.14**	48.1	121.8	**9.8**	30.0
Fluoranthene		**66.90**	43.0	127.9	**9.8**	30.0
Pyrene		**70.74**	37.8	131.4	**9.5**	30.0

Organics - Semi-Volatiles, Prep Batch ID: SF130820W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: z130821b.lcsdw21a, Parent Sample ID: z130821b.lcsw21a

Run in Batch: Z130821B, Run Date: 08/21/2013 17:12, Prep Date: 08/20/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Butyl benzyl phthalate		**70.52**	47.4	121.6	**10.0**	30.0
Benzo(a)anthracene		**69.90**	40.7	115.5	**9.7**	30.0
3,3'-Dichlorobenzidine		**58.78**	37.0	97.2	**11.8**	30.0
Chrysene		**71.18**	28.9	136.7	**10.2**	30.0
Bis(2-ethylhexyl)phthalate		**72.38**	45.2	126.2	**10.3**	30.0
Di-n-octyl phthalate		**79.18**	45.7	123.1	**8.3**	30.0
Benzo(b)fluoranthene		**62.36**	43.3	119.4	**9.6**	30.0
Benzo(k)fluoranthene		**61.60**	41.2	116.9	**10.0**	30.0
Benzo(a)pyrene		**69.12**	51.2	133.4	**9.7**	30.0
Indeno(1,2,3-cd)pyrene		**72.02**	41.5	116.9	**10.9**	30.0
Dibenzo(ah)anthracene		**73.76**	33.8	132.4	**11.9**	30.0
Benzo(ghi)perylene		**62.76**	36.7	122.1	**13.7**	30.0
1-methylnaphthalene		**70.60**	10.0	133.6	**9.4**	30.0
1,4-Dichlorobenzene		**63.46**	20.7	137.7	**8.3**	30.0
1,2-Dichlorobenzene		**65.16**	9.6	166.2	**9.1**	30.0
o-Cresol		**69.28**	39.1	109.4	**9.4**	30.0
3,4-methylphenol		**65.02**	36.4	115.4	**9.8**	30.0
1,3-Dichlorobenzene		**63.90**	36.8	105.8	**8.3**	30.0
1,2-Diphenylhydrazine		**63.68**	40.2	136.4	**9.2**	30.0
1,2,4-Trichlorobenzene		**63.06**	32.2	118.4	**10.5**	30.0

Organics - Volatiles, Prep Batch ID: VF130822W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130822a5.lcsw22a

Run in Batch: 130822A5, Run Date: 08/22/2013 12:20, Prep Date: 08/22/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**104.56**	79.9	124.9
Chlorobenzene		**106.64**	79.2	122.7
1,1-Dichloroethene		**103.38**	69.6	139.4
Trichloroethene		**106.46**	79.7	124.2
Toluene		**107.22**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130822a5.blkw22a

Run in Batch: 130822A5, Run Date: 08/22/2013 14:04, Prep Date: 08/22/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130822W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130822a5.lcsw22b, Parent Sample ID: 130822a5.lcsw22a

Run in Batch: 130822A5, Run Date: 08/22/2013 12:41, Prep Date: 08/22/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Benzene		**104.66**	79.9	124.9	**0.1**	30.0
Chlorobenzene		**106.90**	79.2	122.7	**0.2**	30.0
1,1-Dichloroethene		**102.90**	69.6	139.4	**0.5**	30.0
Trichloroethene		**107.24**	79.7	124.2	**0.7**	30.0
Toluene		**107.90**	79.8	124.5	**0.6**	30.0

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CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC081413.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix
57027					
.01 AOI-09B-GAC-EFF-COMPOSITE (081413)	081413	1300	X		W
.02 AOI-09B-GAC-EFF-GRAB01 (081413)	081413	1030		X	W
.03 AOI-09B-GAC-EFF-GRAB02 (081413)	081413	1040		X	W
.04 AOI-09B-GAC-EFF-GRAB03 (081413)	081413	1050		X	W
.05 AOI-09B-GAC-EFF-GRAB04 (081413)	081413	1100		X	W

Preservative	B	C	E	E	E	A	D	A	
# of Containers	1	1	1	2	2	1	1	3	
Container Information	3	4	5	6	6	9	3	1	

PARAMETER ANALYSIS & METHOD

	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes	
.01 AOI-09B-GAC-EFF-COMPOSITE (081413)	X	X	X	X	X				24 hr Composite 8/13/13 to 8/14/13
.02 AOI-09B-GAC-EFF-GRAB01 (081413)						X	X	X	
.03 AOI-09B-GAC-EFF-GRAB02 (081413)						X	X	X	
.04 AOI-09B-GAC-EFF-GRAB03 (081413)						X	X	X	
.05 AOI-09B-GAC-EFF-GRAB04 (081413)						X	X	X	

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt

Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact
☑ Cooler packed with ice (✓)	
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 5.4

Relinquished By	Received By	Laboratory Received By
Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
Signature:	Signature:	Signature: Tabitha Faust
Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Date/Time: 8/14/13 14:00	Date/Time: 8.14.13 1400	Date/Time: 8-14-13 1570

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
September 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

ENVIRONMENT

Date:
October 25, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during September 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of September 2013, 11,451.65 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flowrates on average were 382 cubic feet (2,855 gallons per day) at an average 15 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on September 24, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E625M,
- total mercury according to USEPA Method EPA 245.1, and

- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured) according to USEPA Method 4500HB.
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on September 24, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE

Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10
June 28, 2013 - July 31, 2013	37,150.30 - 48,831.28	11,680.98
August 1, 2013- August 31, 2013	48,831.28 - 64,419.10	15,587.82
Septmeber 1 - September 30, 2013	64,419.10 - 75,870.75	11,451.65

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.16	0.02	3.8	1	0.03	0.01	11	1	0.004	0.002	<	0.0005	<	0.005	0.065	0.004	0.017	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	9/26/2013		9/30/2013		10/2/2013		9/25/2013		10/7/2013		10/7/2013		10/7/2013		10/7/2013		10/7/2013	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	0.16		3.8		0.03		11		0.004		<		<		0.065		0.017	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	0.015	0.005	<	0.0005	0.360	0.005	7.5		1	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	9/25/2013		10/7/2013		10/7/2013		10/7/2013		9/24/2013		9/26/2013		9/25/2013		9/30/2013		9/30/2013	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		8/14/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.3		2	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		9/24/2013		9/26/2013		9/25/2013		9/30/2013		9/30/2013	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.4		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		9/24/2013		9/26/2013		9/25/2013		9/30/2013		9/30/2013	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.5		<	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		9/24/2013		9/26/2013		9/25/2013		9/30/2013		9/30/2013	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		0.015		<		0.360		7.4		0.8		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.003	<	Varies	Dimethyl Phthalate (<)	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	9/30/2013		9/30/2013		9/30/2013		9/27/2013		9/25/2013	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	9/30/2013		9/30/2013		9/30/2013		NA		NA	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	9/30/2013		9/30/2013		9/30/2013		NA		NA	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	9/30/2013		9/30/2013		9/30/2013		NA		NA	
Sample Date	9/24/2013		9/24/2013		9/24/2013		9/24/2013		9/24/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		<		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Report ID: S58232.01(01)
Generated on 10/08/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Erin Kozak

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S58232.01-S58232.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 09/24/2013
Submitted Date/Time: 09/24/2013 14:30
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S58232.01	AOI-09B-GAC-EFF-COMPOSITE (092413)	Water	09/24/2013 13:15
S58232.02	AOI-09B-GAC-EFF-GRAB01 (092413)	Water	09/24/2013 10:00
S58232.03	AOI-09B-GAC-EFF-GRAB02 (092413)	Water	09/24/2013 10:10
S58232.04	AOI-09B-GAC-EFF-GRAB03 (092413)	Water	09/24/2013 10:20
S58232.05	AOI-09B-GAC-EFF-GRAB04 (092413)	Water	09/24/2013 10:30

Analytical Laboratory Report

Lab Sample ID: S58232.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (092413)
Collected Date/Time: 09/24/2013 13:15
Matrix: Water
COC Reference: BC092413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.3	IR
1	1L Plastic	None	Yes	5.3	IR
2	1L Amber	None	Yes	5.3	IR
1	250ml Plastic	H2SO4	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	09/27/13 12:08	EMR		
Extraction, PCB	Completed			3510C	09/25/13 12:04	RGS		
Mercury Digestion	Completed			E245.1	09/25/13 11:30	CCM		
Metal Digestion	Completed			3015A	10/07/13 10:30	JRH		
Inorganics								
Ammonia-N (Undistilled)	0.16	mg/L	0.02	4500-NH3 D	09/26/13 15:02	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	09/25/13 20:30	ASB		
TBOD5	3.8	mg/L	1	10360	09/30/13 19:30	ASB		
Total Phosphorus	0.03	mg/L	0.01	4500-PE	10/02/13 14:39	MJC	7723-14-0	
Total Suspended Solids	11	mg/L	1	2540 D	09/25/13 18:00	ASB		
Metals								
Arsenic	0.004	mg/L	0.002	E200.8	10/07/13 14:56	JRH	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	10/07/13 14:56	JRH	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	10/07/13 14:56	JRH	7440-47-3	
Copper	0.065	mg/L	0.004	E200.8	10/07/13 14:56	JRH	7440-50-8	
Lead	0.017	mg/L	0.003	E200.8	10/07/13 14:56	JRH	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	09/25/13 15:56	CCM	7439-97-6	
Nickel	0.015	mg/L	0.005	E200.8	10/07/13 14:56	JRH	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	10/07/13 14:56	JRH	7440-22-4	
Zinc	0.360	mg/L	0.005	E200.8	10/07/13 14:56	JRH	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	09/25/13 15:41	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	92-87-5	

Lab Sample ID: S58232.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (092413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzo(a)anthracene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	88-06-2	

Lab Sample ID: S58232.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (092413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Phenanthrene	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	09/27/13 16:39	PL	01746-01-6	

Analytical Laboratory Report

Lab Sample ID: S58232.02
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (092413)
Collected Date/Time: 09/24/2013 10:00
Matrix: Water
COC Reference: BC092413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.3	IR
1	32oz Glass	HCL	Yes	5.3	IR
3	40ml Glass	HCL	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/01/13 10:40	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	09/25/13 11:48	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	1	mg/L	1	1664A	09/26/13 17:38	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	09/30/13 15:16	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	09/30/13 15:16	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58232.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (092413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	09/30/13 15:16	WAT		
o-Xylene	Not detected	ug/L	1	E624	09/30/13 15:16	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S58232.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (092413)
Collected Date/Time: 09/24/2013 10:10
Matrix: Water
COC Reference: BC092413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.3	IR
1	32oz Glass	HCL	Yes	5.3	IR
3	40ml Glass	HCL	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/01/13 10:40	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	09/25/13 11:50	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	2	mg/L	1	1664A	09/26/13 17:38	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	09/30/13 15:37	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	09/30/13 15:37	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58232.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (092413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	09/30/13 15:37	WAT		
o-Xylene	Not detected	ug/L	1	E624	09/30/13 15:37	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S58232.04
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (092413)
Collected Date/Time: 09/24/2013 10:20
Matrix: Water
COC Reference: BC092413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.3	IR
1	32oz Glass	HCL	Yes	5.3	IR
3	40ml Glass	HCL	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/01/13 10:40	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	09/25/13 11:52	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	09/26/13 17:38	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	09/30/13 15:57	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	09/30/13 15:57	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58232.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (092413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	09/30/13 15:57	WAT		
o-Xylene	Not detected	ug/L	1	E624	09/30/13 15:57	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S58232.05
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (092413)
Collected Date/Time: 09/24/2013 10:30
Matrix: Water
COC Reference: BC092413.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	NaOH	Yes	5.3	IR
1	32oz Glass	HCL	Yes	5.3	IR
3	40ml Glass	HCL	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/01/13 10:40	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	09/25/13 11:54	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	09/26/13 17:38	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	09/30/13 16:17	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	09/30/13 16:17	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58232.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (092413)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	09/30/13 16:17	WAT		
o-Xylene	Not detected	ug/L	1	E624	09/30/13 16:17	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC092413.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes
Preservative						B	C	E	E	E	A	D	A
# of Containers						1	1	1	2	2	1	1	3
Container Information						3	4	5	6	6	9	3	1
582232.01 AOI-09B-GAC-EFF-COMPOSITE (092413)	092413	1315	X		W	X	X	X	X	X			
.02 AOI-09B-GAC-EFF-GRAB01 (092413)	092413	1000		X	W						X	X	X
.03 AOI-09B-GAC-EFF-GRAB02 (092413)	092413	1010		X	W						X	X	X
.04 AOI-09B-GAC-EFF-GRAB03 (092413)	092413	1020		X	W						X	X	X
.05 AOI-09B-GAC-EFF-GRAB04 (092413)	092413	1030		X	W						X	X	X

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

24 hr Composite 9/23/13 to 9/24/13

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 5.3	Date/Time: 9/24/13 14:00	Date/Time: 9-24-13 1430	Date/Time: 9-24-13 1430

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S58232.01(01)
Generated on 10/15/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S58232.01-S58232.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 09/24/2013 14:30
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-16)
Batch QC Results (Pages 17-32)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S58232.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (092413)
Collected Date/Time: 09/24/2013 13:15
Matrix: Water
COC Reference: BC092413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	09/26/13 15:02	AMN130926	AMN130926	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	10/02/13 14:39	PHS131002	PHS131002	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	09/25/13 18:00	TSS130928	TSS130928	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Cadmium	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Chromium	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Copper	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Lead	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Mercury	E245.1	09/25/13 15:56	HG2-13-0925A	HGD-092513-1	No	LCS/BLK/MS/MSD/DUP
Nickel	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Silver	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Zinc	E200.8	10/07/13 14:56	MT3-13-1007B	MTD-100713-3	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	09/25/13 15:41	F130925	PA130925W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	09/27/13 16:39	Z130927	SF130927W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58232.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (092413)

Collected Date/Time: 09/24/2013 10:00

Matrix: Water

COC Reference: BC092413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:48	CN130925-W1	CN130925-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01	OGHEX130926W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	09/30/13 15:16	130930A3	VF130930W1	Yes	LCS/BLK/LCSD
Xylenes	E624	09/30/13 15:16	130930A3	VF130930W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58232.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (092413)

Collected Date/Time: 09/24/2013 10:10

Matrix: Water

COC Reference: BC092413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:50	CN130925-W1	CN130925-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01	OGHEX130926W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	09/30/13 15:37	130930A3	VF130930W1	Yes	LCS/BLK/LCSD
Xylenes	E624	09/30/13 15:37	130930A3	VF130930W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58232.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (092413)

Collected Date/Time: 09/24/2013 10:20

Matrix: Water

COC Reference: BC092413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:52	CN130925-W1	CN130925-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01	OGHEX130926W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	09/30/13 15:57	130930A3	VF130930W1	Yes	LCS/BLK/LCSD
Xylenes	E624	09/30/13 15:57	130930A3	VF130930W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58232.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (092413)

Collected Date/Time: 09/24/2013 10:30

Matrix: Water

COC Reference: BC092413.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:54	CN130925-W1	CN130925-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01	OGHEX130926W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	09/30/13 16:17	130930A3	VF130930W1	Yes	LCS/BLK/LCSD
Xylenes	E624	09/30/13 16:17	130930A3	VF130930W1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN130926

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	Ammonia-N (Undistilled)	4500-NH3 D	09/26/13 15:02	AMN130926

Inorganics, Prep Batch ID: CN130925-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.02	Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:48	CN130925-W1
S58232.03	Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:50	CN130925-W1
S58232.04	Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:52	CN130925-W1
S58232.05	Amenable Cyanide	335.4/4500-CN-G	09/25/13 11:54	CN130925-W1

Inorganics, Prep Batch ID: OGHEX130926W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.02	Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01
S58232.03	Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01
S58232.04	Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01
S58232.05	Oil & Grease n-Hexane Extract.	1664A	09/26/13 17:38	OGHEX130926W01

Inorganics, Prep Batch ID: PHS131002

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	Total Phosphorus	4500-PE	10/02/13 14:39	PHS131002

Inorganics, Prep Batch ID: TSS130928

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	Total Suspended Solids	2540 D	09/25/13 18:00	TSS130928

Metals, Prep Batch ID: HGD-092513-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	Mercury	E245.1	09/25/13 15:56	HG2-13-0925A

Metals, Prep Batch ID: MTD-100713-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	Arsenic	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Cadmium	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Chromium	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Copper	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Lead	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Nickel	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Silver	E200.8	10/07/13 14:56	MT3-13-1007B
S58232.01	Zinc	E200.8	10/07/13 14:56	MT3-13-1007B

Organics - PCBs/Pesticides, Prep Batch ID: PA130925W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	PCB	E608	09/25/13 15:41	F130925

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.01	SVOCs, TTO List	E625M	09/27/13 16:39	Z130927

Organics - Volatiles, Prep Batch ID: VF130930W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58232.02	VOCs, TTO List	E624	09/30/13 15:16	130930A3
S58232.02	Xylenes	E624	09/30/13 15:16	130930A3
S58232.03	VOCs, TTO List	E624	09/30/13 15:37	130930A3
S58232.03	Xylenes	E624	09/30/13 15:37	130930A3
S58232.04	VOCs, TTO List	E624	09/30/13 15:57	130930A3
S58232.04	Xylenes	E624	09/30/13 15:57	130930A3
S58232.05	VOCs, TTO List	E624	09/30/13 16:17	130930A3
S58232.05	Xylenes	E624	09/30/13 16:17	130930A3

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58232.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSITE (092413)

Collected Date/Time: 09/24/2013 13:15

Matrix: Water

COC Reference: BC092413.2

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: F130925, Run Date: 09/25/2013 15:41, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**51.30**	34.1	137.1
DCBP		**72.90**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z130927, Run Date: 09/27/2013 16:39, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**40.60**	10.0	110.0
2-Fluorobiphenyl		**62.10**	10.0	116.0
Nitrobenzene-D5		**58.40**	10.0	114.0
Phenol-D5		**33.50**	10.0	110.0
2,4,6-Tribromophenol		**68.20**	10.0	123.0
Terphenyl-D14		**78.90**	10.0	141.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58232.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (092413)

Collected Date/Time: 09/24/2013 10:00

Matrix: Water

COC Reference: BC092413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130930A3, Run Date: 09/30/2013 15:16, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**91.60**	83.0	119.0
1,2-Dichloroethane-D4		**93.00**	77.0	121.0
Toluene-D8		**97.60**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58232.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (092413)

Collected Date/Time: 09/24/2013 10:10

Matrix: Water

COC Reference: BC092413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130930A3, Run Date: 09/30/2013 15:37, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.60**	83.0	119.0
1,2-Dichloroethane-D4		**95.00**	77.0	121.0
Toluene-D8		**97.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58232.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (092413)

Collected Date/Time: 09/24/2013 10:20

Matrix: Water

COC Reference: BC092413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130930A3, Run Date: 09/30/2013 15:57, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**91.60**	83.0	119.0
1,2-Dichloroethane-D4		**100.00**	77.0	121.0
Toluene-D8		**97.80**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58232.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (092413)

Collected Date/Time: 09/24/2013 10:30

Matrix: Water

COC Reference: BC092413.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 130930A3, Run Date: 09/30/2013 16:17, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**95.00**	83.0	119.0
1,2-Dichloroethane-D4		**99.00**	77.0	121.0
Toluene-D8		**96.20**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA130925W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13092507.slcs-w.01

Run in Batch: A130925, Run Date: 09/25/2013 09:49, Prep Date: 09/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**65.90**	34.1	137.1
DCBP		**83.00**	30.0	138.6

Blank (BLK)

Lab Sample ID: a13092506.sblk-w.01

Run in Batch: A130925, Run Date: 09/25/2013 09:38, Prep Date: 09/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**88.60**	34.1	137.1
DCBP		**97.90**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13092508.slcs-w.01d, Parent Sample ID: a13092507.slcs-w.01

Run in Batch: A130925, Run Date: 09/25/2013 10:01, Prep Date: 09/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**71.00**	34.1	137.1
DCBP		**89.80**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 14:57, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**53.10**	10.0	110.0
2-Fluorobiphenyl		**75.10**	10.0	116.0
Nitrobenzene-D5		**75.30**	10.0	114.0
Phenol-D5		**42.50**	10.0	110.0
2,4,6-Tribromophenol		**95.10**	10.0	123.0
Terphenyl-D14		**86.10**	10.0	141.0

Blank (BLK)

Lab Sample ID: z130927.blkw27a

Run in Batch: Z130927, Run Date: 09/27/2013 14:23, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**53.60**	10.0	110.0
2-Fluorobiphenyl		**75.00**	10.0	116.0
Nitrobenzene-D5		**77.80**	10.0	114.0
Phenol-D5		**43.90**	10.0	110.0
2,4,6-Tribromophenol		**99.20**	10.0	123.0
Terphenyl-D14		**93.00**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130927.lcsdw27a, Parent Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 15:31, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**54.80**	10.0	110.0
2-Fluorobiphenyl		**73.70**	10.0	116.0
Nitrobenzene-D5		**76.10**	10.0	114.0
Phenol-D5		**46.00**	10.0	110.0
2,4,6-Tribromophenol		**93.30**	10.0	123.0
Terphenyl-D14		**85.60**	10.0	141.0

Organics - Volatiles, Prep Batch ID: VF130930W1

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130930a3.lcsw30a

Run in Batch: 130930A3, Run Date: 09/30/2013 12:30, Prep Date: 09/30/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.40**	83.0	119.0
1,2-Dichloroethane-D4		**99.40**	77.0	121.0
Toluene-D8		**101.80**	86.0	118.0

Blank (BLK)

Lab Sample ID: 130930a3.blkw30a

Run in Batch: 130930A3, Run Date: 09/30/2013 14:10, Prep Date: 09/30/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.60**	83.0	119.0
1,2-Dichloroethane-D4		**96.20**	77.0	121.0
Toluene-D8		**94.60**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130930a3.lcsw30b, Parent Sample ID: 130930a3.lcsw30a

Run in Batch: 130930A3, Run Date: 09/30/2013 12:50, Prep Date: 09/30/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**101.60**	83.0	119.0
1,2-Dichloroethane-D4		**99.60**	77.0	121.0
Toluene-D8		**99.80**	86.0	118.0

Inorganics, Prep Batch ID: AMN130926

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN130926.LRB1

Run in Batch: AMN130926, Run Date: 09/26/2013 11:49, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN130926.LCS1

Run in Batch: AMN130926, Run Date: 09/26/2013 12:27, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**105**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN130926.MS1, Parent Sample ID: S58254.01

Run in Batch: AMN130926, Run Date: 09/26/2013 13:12, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**98**	80	120

Matrix Spike (MS)

Lab Sample ID: AMN130926.MS2, Parent Sample ID: S58249.01

Run in Batch: AMN130926, Run Date: 09/26/2013 15:23, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**98**	80	120

Duplicate (DUP)

Lab Sample ID: AMN130926.DP1, Parent Sample ID: S57792.01

Run in Batch: AMN130926, Run Date: 09/26/2013 13:36, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**1.5**	20

Inorganics, Prep Batch ID: CN130925-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN130925-W1.LRB1

Run in Batch: CN130925-W1, Run Date: 09/25/2013 11:30, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN130925-W1.LCS1

Run in Batch: CN130925-W1, Run Date: 09/25/2013 11:36, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**99**	90	110

Matrix Spike (MS)

Lab Sample ID: CN130925-W1.MS1, Parent Sample ID: S58227.01

Run in Batch: CN130925-W1, Run Date: 09/25/2013 11:42, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**92**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN130925-W1.MSD1, Parent Sample ID: CN130925-W1.MS1

Run in Batch: CN130925-W1, Run Date: 09/25/2013 11:44, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**93**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN130925-W1.DP1, Parent Sample ID: S58227.01

Run in Batch: CN130925-W1, Run Date: 09/25/2013 11:40, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX130926W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX130926W01.LRB1

Run in Batch: OGHEX130926W01, Run Date: 09/26/2013 17:39, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130926W01.LCS1

Run in Batch: OGHEX130926W01, Run Date: 09/26/2013 17:39, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**88**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX130926W01.LCS2

Run in Batch: OGHEX130926W01, Run Date: 09/26/2013 17:39, Prep Date: 09/26/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**80**	78	114

Inorganics, Prep Batch ID: PHS131002

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS131002.LRB1

Run in Batch: PHS131002, Run Date: 10/02/2013 13:58, Prep Date: 10/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS131002.LRB2

Run in Batch: PHS131002, Run Date: 10/02/2013 19:01, Prep Date: 10/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS131002.LCS1

Run in Batch: PHS131002, Run Date: 10/02/2013 14:09, Prep Date: 10/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**97**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS131002.MS1, Parent Sample ID: S58332.01

Run in Batch: PHS131002, Run Date: 10/02/2013 18:57, Prep Date: 10/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**102**	80	120

Duplicate (DUP)

Lab Sample ID: PHS131002.DP1, Parent Sample ID: S58219.01

Run in Batch: PHS131002, Run Date: 10/02/2013 18:54, Prep Date: 10/02/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**4.5**	20

Inorganics, Prep Batch ID: TSS130928

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS130928.LRB1

Run in Batch: TSS130928, Run Date: 09/28/2013 18:00, Prep Date: 09/28/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS130928.LCS1

Run in Batch: TSS130928, Run Date: 09/28/2013 18:00, Prep Date: 09/28/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**111**	74	117

Duplicate (DUP)

Lab Sample ID: TSS130928.DP1, Parent Sample ID: S58172.01

Run in Batch: TSS130928, Run Date: 09/28/2013 18:00, Prep Date: 09/28/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**6**	15

Metals, Prep Batch ID: HGD-092513-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD/DUP

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-0925A.015.LCS

Run in Batch: HG2-13-0925A, Run Date: 09/25/2013 15:12, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**102**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-0925A.016.LRB

Run in Batch: HG2-13-0925A, Run Date: 09/25/2013 15:14, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-0925A.028.MS, Parent Sample ID: S58169.01

Run in Batch: HG2-13-0925A, Run Date: 09/25/2013 15:38, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**103**	80	120

Matrix Spike (MS)

Lab Sample ID: HG2-13-0925A.039.MS, Parent Sample ID: S58177.01

Run in Batch: HG2-13-0925A, Run Date: 09/25/2013 16:00, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**99**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-0925A.040.MSD, Parent Sample ID: HG2-13-0925A.039.MS

Run in Batch: HG2-13-0925A, Run Date: 09/25/2013 16:02, Prep Date: 09/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**99**	80	120	**0**	20

Metals, Prep Batch ID: MTD-100713-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT3-13-1007B.019.LCS

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 14:08, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**100**	85	115
Cadmium		**99**	85	115
Chromium		**99**	85	115
Copper		**99**	85	115
Lead		**100**	85	115
Nickel		**100**	85	115
Silver		**99**	85	115
Zinc		**100**	85	115

Blank (BLK)

Lab Sample ID: MT3-13-1007B.021.LRB

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 14:20, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.0004	mg/L
Cadmium		**ND**	0.0001	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.0008	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.001	mg/L
Silver		**ND**	0.0001	mg/L
Zinc		**ND**	0.001	mg/L

Matrix Spike (MS)

Lab Sample ID: MT3-13-1007B.033.MS, Parent Sample ID: S58292.01

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 15:24, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**107**	75	125
Cadmium		**102**	75	125
Chromium		**107**	75	125
Copper		**100**	75	125
Lead		**96**	75	125
Nickel		**102**	75	125
Silver		**95**	75	125
Zinc		**108**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-1007B.047.MS, Parent Sample ID: S58386.01

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 16:33, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**103**	75	125
Cadmium		**100**	75	125
Chromium		**102**	75	125
Copper		**97**	75	125
Lead		**96**	75	125
Nickel		**98**	75	125
Silver		**83**	75	125

Metals, Prep Batch ID: MTD-100713-3 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike (MS) (continued)

Lab Sample ID: MT3-13-1007B.047.MS, Parent Sample ID: S58386.01

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 16:33, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Zinc		**100**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-1007B.049.MS, Parent Sample ID: S58386.01

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 16:41, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 250

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**98**	75	125
Cadmium		**98**	75	125
Chromium		**98**	75	125
Copper		**97**	75	125
Lead		**101**	75	125
Nickel		**97**	75	125
Silver		**87**	75	125
Zinc		**99**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-1007B.034.MSD, Parent Sample ID: MT3-13-1007B.033.MS

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 15:28, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**108**	75	125	**1**	20
Cadmium		**101**	75	125	**2**	20
Chromium		**106**	75	125	**1**	20
Copper		**99**	75	125	**2**	20
Lead		**93**	75	125	**3**	20
Nickel		**101**	75	125	**1**	20
Silver		**91**	75	125	**4**	20
Zinc		**105**	75	125	**2**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-1007B.048.MSD, Parent Sample ID: MT3-13-1007B.047.MS

Run in Batch: MT3-13-1007B, Run Date: 10/07/2013 16:37, Prep Date: 10/07/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**105**	75	125	**1**	20
Cadmium		**101**	75	125	**1**	20
Chromium		**101**	75	125	**2**	20
Copper		**98**	75	125	**1**	20
Lead		**97**	75	125	**1**	20
Nickel		**97**	75	125	**0**	20
Silver		**82**	75	125	**1**	20
Zinc		**100**	75	125	**0**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA130925W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13092507.slcs-w.01

Run in Batch: A130925, Run Date: 09/25/2013 09:49, Prep Date: 09/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**94.06**	50.0	125.0

Blank (BLK)

Lab Sample ID: a13092506.sblk-w.01

Run in Batch: A130925, Run Date: 09/25/2013 09:38, Prep Date: 09/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13092508.slcs-w.01d, Parent Sample ID: a13092507.slcs-w.01

Run in Batch: A130925, Run Date: 09/25/2013 10:01, Prep Date: 09/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**101.20**	50.0	125.0	**7.3**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 14:57, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzaldehyde		**43.98**	35.6	137.2
Phenol		**36.88**	10.0	130.4
2-Chlorophenol		**63.00**	35.5	114.1
Bis(2-chloroethyl)ether		**66.30**	43.4	101.8
Bis(2-chloroisopropyl)ether		**67.88**	33.2	105.8
Acetophenone		**64.58**	48.3	105.9
Hexachloroethane		**59.14**	23.8	138.1
N-Nitrosodi-n-propylamine		**69.84**	35.8	109.3
Nitrobenzene		**63.70**	41.7	110.1
Isophorone		**81.58**	44.9	107.5
2-Nitrophenol		**64.44**	54.4	109.5
2,4-Dimethylphenol		**69.52**	43.4	114.9
Bis(2-chloroethoxy)methane		**65.56**	48.3	105.4
2,4-Dichlorophenol		**66.08**	57.7	115.6
Naphthalene		**62.74**	32.9	135.8
4-Chloroaniline		**43.64**	33.4	89.4
Hexachlorobutadiene		**59.38**	30.2	119.4
Caprolactam		**14.74**	10.0	113.1
4-Chloro-3-methylphenol		**70.88**	39.0	123.2
2-Methylnaphthalene		**62.38**	25.5	165.5
Hexachlorocyclopentadiene		**63.70**	10.0	271.8
2,4,6-Trichlorophenol		**70.02**	47.8	117.4
2,4,5-Trichlorophenol		**69.46**	48.9	118.8
1,1'-Biphenyl		**65.72**	49.7	110.7
2-Chloronaphthalene		**66.98**	50.3	108.3
2-Nitroaniline		**70.70**	53.4	119.9
Acenaphthylene		**74.16**	16.9	140.7
Dimethyl Phthalate		**81.76**	49.3	118.4
2,6-Dinitrotoluene		**75.14**	48.0	119.1
3-Nitroaniline		**54.70**	42.1	109.0
Acenaphthene		**67.56**	34.8	124.7
2,4-Dinitrophenol		**60.66**	10.0	171.2
Dibenzofuran		**68.80**	52.1	111.9
4-Nitrophenol		**54.74**	15.4	122.0
2,4-Dinitrotoluene		**76.82**	35.8	126.7
Fluorene		**71.46**	37.1	110.3
Diethyl phthalate		**76.96**	48.1	118.0
4-Chlorophenyl phenyl ether		**71.68**	52.2	116.5
4-Nitroaniline		**68.72**	45.8	119.7
4,6-Dinitro-2-methylphenol		**60.64**	18.7	149.0
N-Nitrosodiphenylamine		**74.14**	10.0	104.2
4-Bromophenyl phenyl ether		**74.34**	44.5	116.9
Hexachlorobenzene		**71.00**	45.2	118.5
Atrazine		**58.12**	52.5	143.1
Pentachlorophenol		**60.94**	10.3	139.1
Phenanthrene		**66.74**	31.8	123.3

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 14:57, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Anthracene		**72.22**	38.1	115.5
Carbazole		**69.20**	44.3	128.8
di-N-butyl phthalate		**77.48**	48.1	121.8
Fluoranthene		**74.68**	43.0	127.9
Pyrene		**74.10**	37.8	131.4
Butyl benzyl phthalate		**77.92**	47.4	121.6
Benzo(a)anthracene		**74.64**	40.7	115.5
3,3'-Dichlorobenzidine		**67.76**	37.0	97.2
Chrysene		**78.30**	28.9	136.7
Bis(2-ethylhexyl)phthalate		**80.04**	45.2	126.2
Di-n-octyl phthalate		**78.10**	45.7	123.1
Benzo(b)fluoranthene		**67.34**	43.3	119.4
Benzo(k)fluoranthene		**65.20**	41.2	116.9
Benzo(a)pyrene		**71.98**	51.2	133.4
Indeno(1,2,3-cd)pyrene		**94.50**	41.5	116.9
Dibenzo(ah)anthracene		**99.06**	33.8	132.4
Benzo(ghi)perylene		**105.48**	36.7	122.1
1-methylnaphthalene		**68.36**	10.0	133.6
1,4-Dichlorobenzene		**59.94**	20.7	137.7
1,2-Dichlorobenzene		**61.40**	9.6	166.2
o-Cresol		**60.92**	39.1	109.4
3,4-methylphenol		**53.41**	36.4	115.4
1,3-Dichlorobenzene		**59.94**	36.8	105.8
1,2-Diphenylhydrazine		**67.04**	40.2	136.4
1,2,4-Trichlorobenzene		**59.84**	32.2	118.4

Blank (BLK)

Lab Sample ID: z130927.blkw27a

Run in Batch: Z130927, Run Date: 09/27/2013 14:23, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z130927.blkw27a

Run in Batch: Z130927, Run Date: 09/27/2013 14:23, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate	*	**3.4**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	1	ug/l
Pentachlorophenol		**ND**	0.5	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z130927.lcsdw27a, Parent Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 15:31, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzaldehyde		**44.80**	35.6	137.2	**1.8**	30.0
Phenol		**40.70**	10.0	130.4	**9.8**	30.0
2-Chlorophenol		**65.94**	35.5	114.1	**4.6**	30.0
Bis(2-chloroethyl)ether		**67.66**	43.4	101.8	**2.0**	30.0
Bis(2-chloroisopropyl)ether		**69.24**	33.2	105.8	**2.0**	30.0

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: z130927.lcsdw27a, Parent Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 15:31, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Acetophenone		**66.64**	48.3	105.9	**3.1**	30.0
Hexachloroethane		**59.46**	23.8	138.1	**0.5**	30.0
N-Nitrosodi-n-propylamine		**71.16**	35.8	109.3	**1.9**	30.0
Nitrobenzene		**65.74**	41.7	110.1	**3.2**	30.0
Isophorone		**83.32**	44.9	107.5	**2.1**	30.0
2-Nitrophenol		**66.32**	54.4	109.5	**2.9**	30.0
2,4-Dimethylphenol		**72.02**	43.4	114.9	**3.5**	30.0
Bis(2-chloroethoxy)methane		**68.02**	48.3	105.4	**3.7**	30.0
2,4-Dichlorophenol		**67.70**	57.7	115.6	**2.4**	30.0
Naphthalene		**63.64**	32.9	135.8	**1.4**	30.0
4-Chloroaniline		**49.38**	33.4	89.4	**12.3**	30.0
Hexachlorobutadiene		**59.28**	30.2	119.4	**0.2**	30.0
Caprolactam		**14.78**	10.0	113.1	**0.3**	30.0
4-Chloro-3-methylphenol		**71.94**	39.0	123.2	**1.5**	30.0
2-Methylnaphthalene		**65.48**	25.5	165.5	**4.8**	30.0
Hexachlorocyclopentadiene		**60.20**	10.0	271.8	**5.6**	30.0
2,4,6-Trichlorophenol		**69.04**	47.8	117.4	**1.4**	30.0
2,4,5-Trichlorophenol		**68.76**	48.9	118.8	**1.0**	30.0
1,1'-Biphenyl		**65.98**	49.7	110.7	**0.4**	30.0
2-Chloronaphthalene		**67.56**	50.3	108.3	**0.9**	30.0
2-Nitroaniline		**70.84**	53.4	119.9	**0.2**	30.0
Acenaphthylene		**74.16**	16.9	140.7	**0.0**	30.0
Dimethyl Phthalate		**78.40**	49.3	118.4	**4.2**	30.0
2,6-Dinitrotoluene		**76.54**	48.0	119.1	**1.8**	30.0
3-Nitroaniline		**57.04**	42.1	109.0	**4.2**	30.0
Acenaphthene		**67.46**	34.8	124.7	**0.1**	30.0
2,4-Dinitrophenol		**54.44**	10.0	171.2	**10.8**	30.0
Dibenzofuran		**69.28**	52.1	111.9	**0.7**	30.0
4-Nitrophenol		**59.22**	15.4	122.0	**7.9**	30.0
2,4-Dinitrotoluene		**75.58**	35.8	126.7	**1.6**	30.0
Fluorene		**71.34**	37.1	110.3	**0.2**	30.0
Diethyl phthalate		**80.16**	48.1	118.0	**4.1**	30.0
4-Chlorophenyl phenyl ether		**73.00**	52.2	116.5	**1.8**	30.0
4-Nitroaniline		**69.80**	45.8	119.7	**1.6**	30.0
4,6-Dinitro-2-methylphenol		**59.86**	18.7	149.0	**1.3**	30.0
N-Nitrosodiphenylamine		**73.36**	10.0	104.2	**1.1**	30.0
4-Bromophenyl phenyl ether		**70.28**	44.5	116.9	**5.6**	30.0
Hexachlorobenzene		**69.52**	45.2	118.5	**2.1**	30.0
Atrazine		**60.64**	52.5	143.1	**4.2**	30.0
Pentachlorophenol		**67.58**	10.3	139.1	**10.3**	30.0
Phenanthrene		**69.06**	31.8	123.3	**3.4**	30.0
Anthracene		**71.64**	38.1	115.5	**0.8**	30.0
Carbazole		**69.84**	44.3	128.8	**0.9**	30.0
di-N-butyl phthalate		**77.70**	48.1	121.8	**0.3**	30.0
Fluoranthene		**73.80**	43.0	127.9	**1.2**	30.0
Pyrene		**75.32**	37.8	131.4	**1.6**	30.0

Organics - Semi-Volatiles, Prep Batch ID: SF130927W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: z130927.lcsdw27a, Parent Sample ID: z130927.lcsw27a

Run in Batch: Z130927, Run Date: 09/27/2013 15:31, Prep Date: 09/27/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Butyl benzyl phthalate		**78.76**	47.4	121.6	**1.1**	30.0
Benzo(a)anthracene		**75.44**	40.7	115.5	**1.1**	30.0
3,3'-Dichlorobenzidine		**69.76**	37.0	97.2	**2.9**	30.0
Chrysene		**78.54**	28.9	136.7	**0.3**	30.0
Bis(2-ethylhexyl)phthalate		**81.76**	45.2	126.2	**2.1**	30.0
Di-n-octyl phthalate		**79.94**	45.7	123.1	**2.3**	30.0
Benzo(b)fluoranthene		**67.68**	43.3	119.4	**0.5**	30.0
Benzo(k)fluoranthene		**67.62**	41.2	116.9	**3.6**	30.0
Benzo(a)pyrene		**73.62**	51.2	133.4	**2.3**	30.0
Indeno(1,2,3-cd)pyrene		**95.80**	41.5	116.9	**1.4**	30.0
Dibenzo(ah)anthracene		**100.08**	33.8	132.4	**1.0**	30.0
Benzo(ghi)perylene		**105.52**	36.7	122.1	**0.0**	30.0
1-methylnaphthalene		**70.10**	10.0	133.6	**2.5**	30.0
1,4-Dichlorobenzene		**60.54**	20.7	137.7	**1.0**	30.0
1,2-Dichlorobenzene		**62.70**	9.6	166.2	**2.1**	30.0
o-Cresol		**63.54**	39.1	109.4	**4.2**	30.0
3,4-methylphenol		**55.73**	36.4	115.4	**4.3**	30.0
1,3-Dichlorobenzene		**60.00**	36.8	105.8	**0.1**	30.0
1,2-Diphenylhydrazine		**68.66**	40.2	136.4	**2.4**	30.0
1,2,4-Trichlorobenzene		**60.54**	32.2	118.4	**1.2**	30.0

Organics - Volatiles, Prep Batch ID: VF130930W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130930a3.lcsw30a

Run in Batch: 130930A3, Run Date: 09/30/2013 12:30, Prep Date: 09/30/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**101.34**	79.9	124.9
Chlorobenzene		**102.90**	79.2	122.7
1,1-Dichloroethene		**96.52**	69.6	139.4
Trichloroethene		**99.38**	79.7	124.2
Toluene		**101.54**	79.8	124.5

Blank (BLK)

Lab Sample ID: 130930a3.blkw30a

Run in Batch: 130930A3, Run Date: 09/30/2013 14:10, Prep Date: 09/30/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF130930W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130930a3.lcsw30b, Parent Sample ID: 130930a3.lcsw30a

Run in Batch: 130930A3, Run Date: 09/30/2013 12:50, Prep Date: 09/30/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzene		**99.12**	79.9	124.9	**2.2**	30.0
Chlorobenzene		**98.62**	79.2	122.7	**4.2**	30.0
1,1-Dichloroethene		**98.10**	69.6	139.4	**1.6**	30.0
Trichloroethene		**98.92**	79.7	124.2	**0.5**	30.0
Toluene		**99.90**	79.8	124.5	**1.6**	30.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC092413.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	6020 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	SW 9010 Amenable Cyanide	624 VOCs TTO + Xylenes
Preservative						B	C	E	E	E	A	D	A
# of Containers						1	1	1	2	2	1	1	3
Container Information						3	4	5	6	6	9	3	1
582232.01 AOI-09B-GAC-EFF-COMPOSITE (092413)	092413	1315	X		W	X	X	X	X	X			
.02 AOI-09B-GAC-EFF-GRAB01 (092413)	092413	1000		X	W						X	X	X
.03 AOI-09B-GAC-EFF-GRAB02 (092413)	092413	1010		X	W						X	X	X
.04 AOI-09B-GAC-EFF-GRAB03 (092413)	092413	1020		X	W						X	X	X
.05 AOI-09B-GAC-EFF-GRAB04 (092413)	092413	1030		X	W						X	X	X

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

24 hr Composite 9/23/13 to 9/24/13

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 5.3	Date/Time: 9/24/13 14:00	Date/Time: 9-24-13 1430	Date/Time: 9-24-13 1430

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
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Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
October 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

ENVIRONMENT

Dear Mr. Robert J. Case:

Date:
November 26, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during October 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of October 2013, 8,995.18 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flowrates on average were 290 cubic feet (2,170 gallons per day) at an average 13.6 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on October 9, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E625M,
- total mercury according to USEPA Method EPA 245.1, and
- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured) according to USEPA Method 4500HB.
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on October 9, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10
June 28, 2013 - July 31, 2013	37,150.30 - 48,831.28	11,680.98
August 1, 2013- August 31, 2013	48,831.28 - 64,419.10	15,587.82
Septmeber 1 - September 30, 2013	64,419.10 - 75,870.75	11,451.65
October 1 - October 31, 2013	75,870.75 - 84,865.93	8,995.18

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.03	0.02	<	1	0.03	0.01	<	1	0.005	0.002	<	0.0005	<	0.005	0.004	0.004	0.003	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	10/10/2013		10/15/2013		10/9/2013		10/10/2013		10/15/2013		10/15/2013		10/15/2013		10/15/2013		10/16/2013	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	0.03		<		0.03		<		0.005		<		<		0.004		0.003	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	<	0.005	<	0.0005	0.036	0.005	8.2		<	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	10/11/2013		10/15/2013		10/16/2013		10/15/2013		10/9/2013		10/10/2013		10/15/2013		10/10/2013		10/10/2013	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		1	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		10/9/2013		10/10/2013		10/15/2013		10/10/2013		10/10/2013	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.8		4	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		10/9/2013		10/10/2013		10/15/2013		10/10/2013		10/10/2013	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.8		1	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		10/9/2013		10/10/2013		10/15/2013		10/10/2013		10/10/2013	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		<		0.036		7.9		1.5		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.003	<	Varies	Dimethyl Phthalate (<)	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	10/10/2013		10/10/2013		10/10/2013		10/15/2013		10/10/2013	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	10/10/2013		10/10/2013		10/10/2013		NA		NA	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	10/10/2013		10/10/2013		10/10/2013		NA		NA	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	10/10/2013		10/10/2013		10/10/2013		NA		NA	
Sample Date	10/9/2013		10/9/2013		10/9/2013		10/9/2013		10/9/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		<		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Report ID: S58459.01(01)
Generated on 10/17/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Erin Kozak

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S58459.01-S58459.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 10/09/2013
Submitted Date/Time: 10/09/2013 15:00
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S58459.01	AOI-09B-GAC-EFF-COMPOSIT (100913)	Water	10/09/2013 12:00
S58459.02	AOI-09B-GAC-EFF-GRAB01 (100913)	Water	10/09/2013 08:20
S58459.03	AOI-09B-GAC-EFF-GRAB02 (100913)	Water	10/09/2013 08:30
S58459.04	AOI-09B-GAC-EFF-GRAB03 (100913)	Water	10/09/2013 08:40
S58459.05	AOI-09B-GAC-EFF-GRAB04 (100913)	Water	10/09/2013 08:50

Analytical Laboratory Report

Lab Sample ID: S58459.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (100913)
Collected Date/Time: 10/09/2013 12:00
Matrix: Water
COC Reference: BC100913.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
4	1L Amber	None	Yes	4.9	IR
1	1L Plastic	None	Yes	4.9	IR
1	250ml Plastic	H2SO4	Yes	4.9	IR
1	125ml Plastic	HNO3	Yes	4.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	10/14/13 11:43	EMR		
Extraction, PCB	Completed			3510C	10/10/13 10:00	RGS		
Mercury Digestion	Completed			E245.1	10/11/13 11:20	CCM		
Metal Digestion	Completed			3015A	10/15/13 08:45	JRH		
Inorganics								
Ammonia-N (Undistilled)	0.03	mg/L	0.02	4500-NH3 D	10/10/13 20:25	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	10/10/13 13:15	ASB		
TBOD5	Not detected	mg/L	1	10360	10/15/13 15:30	ASB		
Total Phosphorus	0.03	mg/L	0.01	4500-PE	10/09/13 19:59	MJC	7723-14-0	
Total Suspended Solids	Not detected	mg/L	1	2540 D	10/10/13 16:00	ASB		
Metals								
Arsenic	0.005	mg/L	0.002	E200.8	10/15/13 15:27	JRH	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	10/15/13 15:27	JRH	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	10/15/13 15:27	JRH	7440-47-3	
Copper	0.004	mg/L	0.004	E200.8	10/15/13 15:27	JRH	7440-50-8	
Lead	0.003	mg/L	0.003	E200.8	10/16/13 17:35	JRH	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	10/11/13 17:22	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	10/15/13 15:27	JRH	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	10/16/13 14:11	JRH	7440-22-4	
Zinc	0.036	mg/L	0.005	E200.8	10/15/13 15:27	JRH	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	10/10/13 16:06	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	92-87-5	

Lab Sample ID: S58459.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (100913)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzo(a)anthracene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	88-06-2	

Lab Sample ID: S58459.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (100913)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Phenanthrene	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	10/15/13 17:33	PL	01746-01-6	

Analytical Laboratory Report

Lab Sample ID: S58459.02
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (100913)
Collected Date/Time: 10/09/2013 08:20
Matrix: Water
COC Reference: BC100913.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.9	IR
1	32oz Glass	HCL	Yes	4.9	IR
1	125ml Plastic	NaOH	Yes	4.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/11/13 10:15	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/15/13 17:23	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	Not detected	mg/L	1	1664A	10/10/13 10:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	10/10/13 19:11	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	10/10/13 19:11	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58459.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (100913)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	10/10/13 19:11	WAT		
o-Xylene	Not detected	ug/L	1	E624	10/10/13 19:11	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S58459.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (100913)
Collected Date/Time: 10/09/2013 08:30
Matrix: Water
COC Reference: BC100913.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.9	IR
1	32oz Glass	HCL	Yes	4.9	IR
1	125ml Plastic	NaOH	Yes	4.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/11/13 10:15	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/15/13 17:31	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	1	mg/L	1	1664A	10/10/13 10:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	10/10/13 19:33	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	10/10/13 19:33	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58459.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (100913)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	10/10/13 19:33	WAT		
o-Xylene	Not detected	ug/L	1	E624	10/10/13 19:33	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S58459.04
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (100913)
Collected Date/Time: 10/09/2013 08:40
Matrix: Water
COC Reference: BC100913.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.9	IR
1	32oz Glass	HCL	Yes	4.9	IR
1	125ml Plastic	NaOH	Yes	4.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/11/13 10:15	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/15/13 17:33	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	4	mg/L	1	1664A	10/10/13 10:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	10/10/13 19:55	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	10/10/13 19:55	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58459.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (100913)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	10/10/13 19:55	WAT		
o-Xylene	Not detected	ug/L	1	E624	10/10/13 19:55	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S58459.05
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (100913)
Collected Date/Time: 10/09/2013 08:50
Matrix: Water
COC Reference: BC100913.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.9	IR
1	32oz Glass	HCL	Yes	4.9	IR
1	125ml Plastic	NaOH	Yes	4.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	10/11/13 10:15	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/15/13 17:35	JDP	57-12-5AM	1
Oil & Grease n-Hexane Extract.	1	mg/L	1	1664A	10/10/13 10:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	10/10/13 20:17	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	10/10/13 20:17	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	106-46-7	

1-* Total CN- = < 0.005 mg/L

Lab Sample ID: S58459.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (100913)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
VOCs, TTO List (continued)								
Trichlorofluoromethane	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	75-69-4	
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	10/10/13 20:17	WAT		
o-Xylene	Not detected	ug/L	1	E624	10/10/13 20:17	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC100913.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	# of Containers	Container Information	200.8 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	4500-CN Amenable Cyanide	624 VOCs TTO + Xylenes
						B	1	3								
						C	1	4	X	X	X	X	X			
						E	1	5						X	X	X
						E	2	6						X	X	X
						E	2	6						X	X	X
						A	1	9						X	X	X
						D	1	3						X	X	X
						A	3	1						X	X	X
58459 .01 AOI-09B-GAC-EFF-COMPOSIT (100913)	100913	1200	X		W											
.02 AOI-09B-GAC-EFF-GRAB01 (100913)	100913	0820		X	W											
.03 AOI-09B-GAC-EFF-GRAB02 (100913)	100913	0830		X	W											
.04 AOI-09B-GAC-EFF-GRAB03 (100913)	100913	0840		X	W											
.05 AOI-09B-GAC-EFF-GRAB04 (100913)	100913	0850		X	W											

PARAMETER ANALYSIS & METHOD

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

24 hr Composite 10/8/13 to 10/9/13

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 4.9	Date/Time: 10/9/13 13:00	Date/Time: 10-9-13 1300	Date/Time: 10/9/13 1600

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S58459.01(01)
Generated on 10/23/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S58459.01-S58459.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 10/09/2013 15:00
Sampled by: Ben Lawrence
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-16)
Batch QC Results (Pages 17-30)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S58459.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (100913)
Collected Date/Time: 10/09/2013 12:00
Matrix: Water
COC Reference: BC100913.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	4500-NH3 D	10/10/13 20:25	AMN131010	AMN131010	No	BLK/LCS/MS/DUP
Total Phosphorus	4500-PE	10/09/13 19:59	PHS131009	PHS131009	No	BLK/LCS/MS/DUP
Total Suspended Solids	2540 D	10/10/13 16:00	TSS131010	TSS131010	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	10/15/13 15:27	MT3-13-1015A	MTD-101513-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	10/15/13 15:27	MT3-13-1015A	MTD-101513-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	10/15/13 15:27	MT3-13-1015A	MTD-101513-1	No	LCS/BLK/MS/MSD
Copper	E200.8	10/15/13 15:27	MT3-13-1015A	MTD-101513-1	No	LCS/BLK/MS/MSD
Lead	E200.8	10/16/13 17:35	MT-13-1016A	MTD-101513-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	10/11/13 17:22	HG2-13-1011A	HGD-101113-3	No	LCS/BLK/MS/MSD/DUP
Nickel	E200.8	10/15/13 15:27	MT3-13-1015A	MTD-101513-1	No	LCS/BLK/MS/MSD
Silver	E200.8	10/16/13 14:11	MT3-13-1016A	MTD-101513-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	10/15/13 15:27	MT3-13-1015A	MTD-101513-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	10/10/13 16:06	F131010	PA131010W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	10/15/13 17:33	Z131015	SF131014W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58459.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (100913)

Collected Date/Time: 10/09/2013 08:20

Matrix: Water

COC Reference: BC100913.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:23	CN131015-W1	CN131015-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01	OGHEX131010W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	10/10/13 19:11	131010A7	VF131010W1	Yes	LCS/BLK/LCSD
Xylenes	E624	10/10/13 19:11	131010A7	VF131010W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58459.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (100913)

Collected Date/Time: 10/09/2013 08:30

Matrix: Water

COC Reference: BC100913.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:31	CN131015-W1	CN131015-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01	OGHEX131010W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	10/10/13 19:33	131010A7	VF131010W1	Yes	LCS/BLK/LCSD
Xylenes	E624	10/10/13 19:33	131010A7	VF131010W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58459.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (100913)

Collected Date/Time: 10/09/2013 08:40

Matrix: Water

COC Reference: BC100913.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:33	CN131015-W1	CN131015-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01	OGHEX131010W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	10/10/13 19:55	131010A7	VF131010W1	Yes	LCS/BLK/LCSD
Xylenes	E624	10/10/13 19:55	131010A7	VF131010W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S58459.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (100913)

Collected Date/Time: 10/09/2013 08:50

Matrix: Water

COC Reference: BC100913.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:35	CN131015-W1	CN131015-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01	OGHEX131010W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	10/10/13 20:17	131010A7	VF131010W1	Yes	LCS/BLK/LCSD
Xylenes	E624	10/10/13 20:17	131010A7	VF131010W1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN131010

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	Ammonia-N (Undistilled)	4500-NH3 D	10/10/13 20:25	AMN131010

Inorganics, Prep Batch ID: CN131015-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.02	Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:23	CN131015-W1
S58459.03	Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:31	CN131015-W1
S58459.04	Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:33	CN131015-W1
S58459.05	Amenable Cyanide	335.4/4500-CN-G	10/15/13 17:35	CN131015-W1

Inorganics, Prep Batch ID: OGHEX131010W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.02	Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01
S58459.03	Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01
S58459.04	Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01
S58459.05	Oil & Grease n-Hexane Extract.	1664A	10/10/13 10:00	OGHEX131010W01

Inorganics, Prep Batch ID: PHS131009

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	Total Phosphorus	4500-PE	10/09/13 19:59	PHS131009

Inorganics, Prep Batch ID: TSS131010

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	Total Suspended Solids	2540 D	10/10/13 16:00	TSS131010

Metals, Prep Batch ID: HGD-101113-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	Mercury	E245.1	10/11/13 17:22	HG2-13-1011A

Metals, Prep Batch ID: MTD-101513-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	Arsenic	E200.8	10/15/13 15:27	MT3-13-1015A
S58459.01	Cadmium	E200.8	10/15/13 15:27	MT3-13-1015A
S58459.01	Chromium	E200.8	10/15/13 15:27	MT3-13-1015A
S58459.01	Copper	E200.8	10/15/13 15:27	MT3-13-1015A
S58459.01	Lead	E200.8	10/16/13 17:35	MT-13-1016A
S58459.01	Nickel	E200.8	10/15/13 15:27	MT3-13-1015A
S58459.01	Silver	E200.8	10/16/13 14:11	MT3-13-1016A
S58459.01	Zinc	E200.8	10/15/13 15:27	MT3-13-1015A

Organics - PCBs/Pesticides, Prep Batch ID: PA131010W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	PCB	E608	10/10/13 16:06	F131010

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF131014W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.01	SVOCs, TTO List	E625M	10/15/13 17:33	Z131015

Organics - Volatiles, Prep Batch ID: VF131010W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S58459.02	VOCs, TTO List	E624	10/10/13 19:11	131010A7
S58459.02	Xylenes	E624	10/10/13 19:11	131010A7
S58459.03	VOCs, TTO List	E624	10/10/13 19:33	131010A7
S58459.03	Xylenes	E624	10/10/13 19:33	131010A7
S58459.04	VOCs, TTO List	E624	10/10/13 19:55	131010A7
S58459.04	Xylenes	E624	10/10/13 19:55	131010A7
S58459.05	VOCs, TTO List	E624	10/10/13 20:17	131010A7
S58459.05	Xylenes	E624	10/10/13 20:17	131010A7

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58459.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (100913)

Collected Date/Time: 10/09/2013 12:00

Matrix: Water

COC Reference: BC100913.2

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: F131010, Run Date: 10/10/2013 16:06, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**71.10**	34.1	137.1
DCBP		**103.00**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z131015, Run Date: 10/15/2013 17:33, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**55.50**	10.0	110.0
2-Fluorobiphenyl		**87.10**	10.0	116.0
Nitrobenzene-D5		**85.30**	10.0	114.0
Phenol-D5		**45.10**	10.0	110.0
2,4,6-Tribromophenol		**99.20**	10.0	123.0
Terphenyl-D14		**104.60**	10.0	141.0

Lab Sample ID: S58459.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (100913)

Collected Date/Time: 10/09/2013 08:20

Matrix: Water

COC Reference: BC100913.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131010A7, Run Date: 10/10/2013 19:11, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**95.60**	83.0	119.0
1,2-Dichloroethane-D4		**89.40**	77.0	121.0
Toluene-D8		**100.20**	86.0	118.0

Lab Sample ID: S58459.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (100913)

Collected Date/Time: 10/09/2013 08:30

Matrix: Water

COC Reference: BC100913.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131010A7, Run Date: 10/10/2013 19:33, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**94.60**	83.0	119.0
1,2-Dichloroethane-D4		**90.20**	77.0	121.0
Toluene-D8		**99.60**	86.0	118.0

Lab Sample ID: S58459.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (100913)

Collected Date/Time: 10/09/2013 08:40

Matrix: Water

COC Reference: BC100913.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131010A7, Run Date: 10/10/2013 19:55, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.40**	83.0	119.0
1,2-Dichloroethane-D4		**89.80**	77.0	121.0
Toluene-D8		**98.40**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S58459.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (100913)

Collected Date/Time: 10/09/2013 08:50

Matrix: Water

COC Reference: BC100913.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131010A7, Run Date: 10/10/2013 20:17, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.20**	83.0	119.0
1,2-Dichloroethane-D4		**90.80**	77.0	121.0
Toluene-D8		**99.60**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA131010W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: b13101104.slcs-w.01

Run in Batch: B131011, Run Date: 10/11/2013 09:07, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**109.10**	34.1	137.1
DCBP		**131.20**	30.0	138.6

Laboratory Control Sample (LCS)

Lab Sample ID: f13101007.slcs-w.01

Run in Batch: F131010, Run Date: 10/10/2013 11:44, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**85.50**	34.1	137.1
DCBP		**86.50**	30.0	138.6

Blank (BLK)

Lab Sample ID: b13101106.sblk-w.01

Run in Batch: B131011, Run Date: 10/11/2013 09:43, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**89.60**	34.1	137.1
DCBP		**107.20**	30.0	138.6

Blank (BLK)

Lab Sample ID: f13101006.sblk-w.01

Run in Batch: F131010, Run Date: 10/10/2013 11:04, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**99.70**	34.1	137.1
DCBP		**95.30**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13101105.slcs-w.01d, Parent Sample ID: b13101104.slcs-w.01

Run in Batch: B131011, Run Date: 10/11/2013 09:27, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**108.40**	34.1	137.1
DCBP		**131.20**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13101008.slcs-w.01d, Parent Sample ID: f13101007.slcs-w.01

Run in Batch: F131010, Run Date: 10/10/2013 11:56, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**83.40**	34.1	137.1
DCBP		**81.30**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF131014W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z131015.lcsw15a

Run in Batch: Z131015, Run Date: 10/15/2013 14:43, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**49.30**	10.0	110.0
2-Fluorobiphenyl		**65.20**	10.0	116.0
Nitrobenzene-D5		**67.00**	10.0	114.0
Phenol-D5		**44.40**	10.0	110.0
2,4,6-Tribromophenol		**84.90**	10.0	123.0
Terphenyl-D14		**77.60**	10.0	141.0

Blank (BLK)

Lab Sample ID: z131015.blkw15a

Run in Batch: Z131015, Run Date: 10/15/2013 14:10, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**55.50**	10.0	110.0
2-Fluorobiphenyl		**74.90**	10.0	116.0
Nitrobenzene-D5		**75.90**	10.0	114.0
Phenol-D5		**50.50**	10.0	110.0
2,4,6-Tribromophenol		**100.60**	10.0	123.0
Terphenyl-D14		**92.00**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z131015.lcsdw15a, Parent Sample ID: z131015.lcsw15a

Run in Batch: Z131015, Run Date: 10/15/2013 15:17, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**48.40**	10.0	110.0
2-Fluorobiphenyl		**68.20**	10.0	116.0
Nitrobenzene-D5		**70.40**	10.0	114.0
Phenol-D5		**40.70**	10.0	110.0
2,4,6-Tribromophenol		**87.00**	10.0	123.0
Terphenyl-D14		**79.40**	10.0	141.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF131010W1

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 131010a7.lcsw10a

Run in Batch: 131010A7, Run Date: 10/10/2013 13:19, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.60**	83.0	119.0
1,2-Dichloroethane-D4		**93.40**	77.0	121.0
Toluene-D8		**102.00**	86.0	118.0

Blank (BLK)

Lab Sample ID: 131010a7.blkw10a

Run in Batch: 131010A7, Run Date: 10/10/2013 15:09, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.80**	83.0	119.0
1,2-Dichloroethane-D4		**92.00**	77.0	121.0
Toluene-D8		**98.20**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 131010a7.lcsw10b, Parent Sample ID: 131010a7.lcsw10a

Run in Batch: 131010A7, Run Date: 10/10/2013 13:41, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.40**	83.0	119.0
1,2-Dichloroethane-D4		**92.00**	77.0	121.0
Toluene-D8		**101.60**	86.0	118.0

Inorganics, Prep Batch ID: AMN131010

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN131010.LRB1

Run in Batch: AMN131010, Run Date: 10/10/2013 11:01, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN131010.LCS1

Run in Batch: AMN131010, Run Date: 10/10/2013 11:53, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**105**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN131010.MS1, Parent Sample ID: S58262.02

Run in Batch: AMN131010, Run Date: 10/10/2013 12:59, Prep Date: 10/10/2013, Matrix: Soil, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**103**	80	120

Matrix Spike (MS)

Lab Sample ID: AMN131010.MS2, Parent Sample ID: S58281.01

Run in Batch: AMN131010, Run Date: 10/10/2013 13:24, Prep Date: 10/10/2013, Matrix: Soil, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**99**	80	120

Matrix Spike (MS)

Lab Sample ID: AMN131010.MS3, Parent Sample ID: S58441.03

Run in Batch: AMN131010, Run Date: 10/10/2013 15:58, Prep Date: 10/10/2013, Matrix: Soil, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**105**	80	120

Duplicate (DUP)

Lab Sample ID: AMN131010.DP1, Parent Sample ID: S58349.01

Run in Batch: AMN131010, Run Date: 10/10/2013 14:38, Prep Date: 10/10/2013, Matrix: Soil, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**0.4**	20

Duplicate (DUP)

Lab Sample ID: AMN131010.DP2, Parent Sample ID: S58441.01

Run in Batch: AMN131010, Run Date: 10/10/2013 15:27, Prep Date: 10/10/2013, Matrix: Soil, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**3.2**	20

Inorganics, Prep Batch ID: CN131015-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN131015-W1.LRB1

Run in Batch: CN131015-W1, Run Date: 10/15/2013 17:15, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN131015-W1.LCS1

Run in Batch: CN131015-W1, Run Date: 10/15/2013 17:21, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**96**	90	110

Matrix Spike (MS)

Lab Sample ID: CN131015-W1.MS1, Parent Sample ID: S58459.02

Run in Batch: CN131015-W1, Run Date: 10/15/2013 17:27, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**89**	90	110

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN131015-W1.MSD1, Parent Sample ID: CN131015-W1.MS1

Run in Batch: CN131015-W1, Run Date: 10/15/2013 17:29, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**88**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN131015-W1.DP1, Parent Sample ID: S58459.02

Run in Batch: CN131015-W1, Run Date: 10/15/2013 17:25, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX131010W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX131010W01.LRB1

Run in Batch: OGHEX131010W01, Run Date: 10/10/2013 10:00, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX131010W01.LCS1

Run in Batch: OGHEX131010W01, Run Date: 10/10/2013 10:00, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**92**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX131010W01.LCS2

Run in Batch: OGHEX131010W01, Run Date: 10/10/2013 10:00, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**92**	78	114

Inorganics, Prep Batch ID: PHS131009

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS131009.LRB1

Run in Batch: PHS131009, Run Date: 10/09/2013 15:03, Prep Date: 10/09/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS131009.LRB2

Run in Batch: PHS131009, Run Date: 10/09/2013 15:09, Prep Date: 10/09/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS131009.LCS1

Run in Batch: PHS131009, Run Date: 10/09/2013 15:24, Prep Date: 10/09/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**99**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS131009.MS1, Parent Sample ID: S58355.01

Run in Batch: PHS131009, Run Date: 10/09/2013 20:05, Prep Date: 10/09/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**97**	80	120

Duplicate (DUP)

Lab Sample ID: PHS131009.DP1, Parent Sample ID: S53425.01

Run in Batch: PHS131009, Run Date: 10/09/2013 20:02, Prep Date: 10/09/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**11.6**	20

Inorganics, Prep Batch ID: TSS131010

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS131010.LRB1

Run in Batch: TSS131010, Run Date: 10/10/2013 16:00, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS131010.LCS1

Run in Batch: TSS131010, Run Date: 10/10/2013 16:00, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**95**	74	117

Duplicate (DUP)

Lab Sample ID: TSS131010.DP1, Parent Sample ID: S58452.01

Run in Batch: TSS131010, Run Date: 10/10/2013 16:00, Prep Date: 10/10/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**2**	15

Metals, Prep Batch ID: HGD-101113-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD/DUP

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-1011A.054.LCS

Run in Batch: HG2-13-1011A, Run Date: 10/11/2013 16:33, Prep Date: 10/11/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**97**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-1011A.055.LRB

Run in Batch: HG2-13-1011A, Run Date: 10/11/2013 16:35, Prep Date: 10/11/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-1011A.068.MS, Parent Sample ID: S58333.05

Run in Batch: HG2-13-1011A, Run Date: 10/11/2013 17:01, Prep Date: 10/11/2013, Matrix: Liquid, Dilution: 2

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**101**	80	120

Matrix Spike (MS)

Lab Sample ID: HG2-13-1011A.081.MS, Parent Sample ID: S58461.02

Run in Batch: HG2-13-1011A, Run Date: 10/11/2013 17:28, Prep Date: 10/11/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**98**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-1011A.082.MSD, Parent Sample ID: HG2-13-1011A.081.MS

Run in Batch: HG2-13-1011A, Run Date: 10/11/2013 17:30, Prep Date: 10/11/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**101**	80	120	**2**	20

Metals, Prep Batch ID: MTD-101513-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT-13-1016A.014.LCS

Run in Batch: MT-13-1016A, Run Date: 10/16/2013 16:35, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Lead		**98**	85	115

Laboratory Control Sample (LCS)

Lab Sample ID: MT3-13-1015A.017.LCS

Run in Batch: MT3-13-1015A, Run Date: 10/15/2013 13:30, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**102**	85	115
Cadmium		**99**	85	115
Chromium		**103**	85	115
Copper		**102**	85	115
Nickel		**102**	85	115
Zinc		**100**	85	115

Laboratory Control Sample (LCS)

Lab Sample ID: MT3-13-1016A.016.LCS

Run in Batch: MT3-13-1016A, Run Date: 10/16/2013 13:05, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Silver		**98**	85	115

Blank (BLK)

Lab Sample ID: MT-13-1016A.015.LRB

Run in Batch: MT-13-1016A, Run Date: 10/16/2013 16:37, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Lead		**ND**	0.0006	mg/L

Blank (BLK)

Lab Sample ID: MT3-13-1015A.019.LRB

Run in Batch: MT3-13-1015A, Run Date: 10/15/2013 13:50, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.0004	mg/L
Cadmium		**ND**	0.0001	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.0008	mg/L
Nickel		**ND**	0.001	mg/L
Zinc		**ND**	0.001	mg/L

Blank (BLK)

Lab Sample ID: MT3-13-1016A.018.LRB

Run in Batch: MT3-13-1016A, Run Date: 10/16/2013 13:10, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Silver		**ND**	0.0001	mg/L

Metals, Prep Batch ID: MTD-101513-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike (MS)

Lab Sample ID: MT-13-1016A.027.MS, Parent Sample ID: S58392.01

Run in Batch: MT-13-1016A, Run Date: 10/16/2013 17:00, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Lead		**95**	75	125

Matrix Spike (MS)

Lab Sample ID: MT-13-1016A.039.MS, Parent Sample ID: S58486.01

Run in Batch: MT-13-1016A, Run Date: 10/16/2013 17:43, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Lead		**96**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-1015A.031.MS, Parent Sample ID: S58392.01

Run in Batch: MT3-13-1015A, Run Date: 10/15/2013 14:46, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**103**	75	125
Cadmium		**99**	75	125
Chromium		**104**	75	125
Copper		**101**	75	125
Nickel		**101**	75	125
Zinc		**102**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-1015A.045.MS, Parent Sample ID: S58486.01

Run in Batch: MT3-13-1015A, Run Date: 10/15/2013 15:51, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**103**	75	125
Cadmium		**101**	75	125
Chromium		**100**	75	125
Copper		**98**	75	125
Nickel		**100**	75	125
Zinc		**99**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-1016A.030.MS, Parent Sample ID: S58392.01

Run in Batch: MT3-13-1016A, Run Date: 10/16/2013 13:43, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Silver		**80**	75	125

Matrix Spike (MS)

Lab Sample ID: MT3-13-1016A.043.MS, Parent Sample ID: S58486.01

Run in Batch: MT3-13-1016A, Run Date: 10/16/2013 15:19, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Silver		**94**	75	125

Metals, Prep Batch ID: MTD-101513-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT-13-1016A.028.MSD, Parent Sample ID: MT-13-1016A.027.MS

Run in Batch: MT-13-1016A, Run Date: 10/16/2013 17:02, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Lead		**97**	75	125	**3**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT-13-1016A.040.MSD, Parent Sample ID: MT-13-1016A.039.MS

Run in Batch: MT-13-1016A, Run Date: 10/16/2013 17:45, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Lead		**95**	75	125	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-1015A.032.MSD, Parent Sample ID: MT3-13-1015A.031.MS

Run in Batch: MT3-13-1015A, Run Date: 10/15/2013 14:50, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**106**	75	125	**3**	20
Cadmium		**100**	75	125	**1**	20
Chromium		**104**	75	125	**1**	20
Copper		**100**	75	125	**1**	20
Nickel		**100**	75	125	**1**	20
Zinc		**100**	75	125	**2**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-1015A.046.MSD, Parent Sample ID: MT3-13-1015A.045.MS

Run in Batch: MT3-13-1015A, Run Date: 10/15/2013 15:55, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**104**	75	125	**1**	20
Cadmium		**99**	75	125	**2**	20
Chromium		**100**	75	125	**1**	20
Copper		**98**	75	125	**0**	20
Nickel		**100**	75	125	**1**	20
Zinc		**101**	75	125	**2**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-1016A.031.MSD, Parent Sample ID: MT3-13-1016A.030.MS

Run in Batch: MT3-13-1016A, Run Date: 10/16/2013 13:46, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Silver		**81**	75	125	**1**	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT3-13-1016A.044.MSD, Parent Sample ID: MT3-13-1016A.043.MS

Run in Batch: MT3-13-1016A, Run Date: 10/16/2013 15:22, Prep Date: 10/15/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Silver		**92**	75	125	**3**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA131010W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: b13101104.slcs-w.01

Run in Batch: B131011, Run Date: 10/11/2013 09:07, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
4,4'-DDD		**88.93**	60.0	120.0

Laboratory Control Sample (LCS)

Lab Sample ID: f13101007.slcs-w.01

Run in Batch: F131010, Run Date: 10/10/2013 11:44, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**100.52**	50.0	125.0

Blank (BLK)

Lab Sample ID: b13101106.sblk-w.01

Run in Batch: B131011, Run Date: 10/11/2013 09:43, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.1	ug/L
PCB-1221		**ND**	0.1	ug/L
PCB-1232		**ND**	0.1	ug/L
PCB-1242		**ND**	0.1	ug/L
PCB-1248		**ND**	0.1	ug/L
PCB-1254		**ND**	0.1	ug/L
PCB-1260		**ND**	0.1	ug/L

Blank (BLK)

Lab Sample ID: f13101006.sblk-w.01

Run in Batch: F131010, Run Date: 10/10/2013 11:04, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: b13101105.slcs-w.01d, Parent Sample ID: b13101104.slcs-w.01

Run in Batch: B131011, Run Date: 10/11/2013 09:27, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
4,4'-DDD		**89.48**	60.0	120.0	**0.6**	20.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: f13101008.slcs-w.01d, Parent Sample ID: f13101007.slcs-w.01

Run in Batch: F131010, Run Date: 10/10/2013 11:56, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**92.72**	50.0	125.0	**8.1**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF131014W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z131015.lcsw15a

Run in Batch: Z131015, Run Date: 10/15/2013 14:43, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Chlorophenol		**56.68**	14.0	123.0
4-Nitrophenol		**55.92**	10.0	110.0
Acenaphthene		**60.80**	26.4	118.0
4-Chloro-3-methylphenol		**64.20**	20.8	120.7
1,4-Dichlorobenzene		**50.06**	16.8	110.0
2,4-Dinitrotoluene		**65.54**	24.0	110.0
N-Nitrosodi-n-propylamine		**62.72**	31.3	119.6
Pentachlorophenol		**57.26**	10.0	110.9
Phenol		**38.86**	10.0	110.0
Pyrene		**69.22**	23.0	127.5
1,2,4-Trichlorobenzene		**52.76**	20.5	110.0

Blank (BLK)

Lab Sample ID: z131015.blkw15a

Run in Batch: Z131015, Run Date: 10/15/2013 14:10, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate	*	**0.8**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate	*	**3.0**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF131014W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z131015.blkw15a

Run in Batch: Z131015, Run Date: 10/15/2013 14:10, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	1	ug/l
Pentachlorophenol		**ND**	0.5	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z131015.lcsdw15a, Parent Sample ID: z131015.lcsw15a

Run in Batch: Z131015, Run Date: 10/15/2013 15:17, Prep Date: 10/14/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Chlorophenol		**60.12**	14.0	123.0	**5.9**	30.0
4-Nitrophenol		**55.24**	10.0	110.0	**1.2**	30.0
Acenaphthene		**63.56**	26.4	118.0	**4.4**	30.0
4-Chloro-3-methylphenol		**69.22**	20.8	120.7	**7.5**	30.0
1,4-Dichlorobenzene		**54.10**	16.8	110.0	**7.8**	30.0
2,4-Dinitrotoluene		**69.14**	24.0	110.0	**5.3**	30.0
N-Nitrosodi-n-propylamine		**66.40**	31.3	119.6	**5.7**	30.0
Pentachlorophenol		**61.86**	10.0	110.9	**7.7**	30.0
Phenol		**36.06**	10.0	110.0	**7.5**	30.0
Pyrene		**73.20**	23.0	127.5	**5.6**	30.0
1,2,4-Trichlorobenzene		**55.82**	20.5	110.0	**5.6**	30.0

Organics - Volatiles, Prep Batch ID: VF131010W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 131010a7.lcsw10a

Run in Batch: 131010A7, Run Date: 10/10/2013 13:19, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzene		**97.42**	79.9	124.9
Chlorobenzene		**97.98**	79.2	122.7
1,1-Dichloroethene		**94.44**	69.6	139.4
Trichloroethene		**99.02**	79.7	124.2
Toluene		**100.80**	79.8	124.5

Blank (BLK)

Lab Sample ID: 131010a7.blkw10a

Run in Batch: 131010A7, Run Date: 10/10/2013 15:09, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF131010W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 131010a7.lcsw10b, Parent Sample ID: 131010a7.lcsw10a

Run in Batch: 131010A7, Run Date: 10/10/2013 13:41, Prep Date: 10/10/2013, Matrix: WW, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Benzene		**96.60**	79.9	124.9	**0.8**	30.0
Chlorobenzene		**95.06**	79.2	122.7	**3.0**	30.0
1,1-Dichloroethene		**90.04**	69.6	139.4	**4.8**	30.0
Trichloroethene		**96.78**	79.7	124.2	**2.3**	30.0
Toluene		**99.06**	79.8	124.5	**1.7**	30.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC100913.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	# of Containers	Container Information	200.8 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	4500-CN Amenable Cyanide	624 VOCs TTO + Xylenes
						B	1	3								
						C	1	4	X	X	X	X	X			
						E	1	5						X	X	X
						E	2	6						X	X	X
						E	2	6						X	X	X
						A	1	9						X	X	X
						D	1	3						X	X	X
						A	3	1						X	X	X
58459 .01 AOI-09B-GAC-EFF-COMPOSIT (100913)	100913	1200	X		W											
.02 AOI-09B-GAC-EFF-GRAB01 (100913)	100913	0820		X	W											
.03 AOI-09B-GAC-EFF-GRAB02 (100913)	100913	0830		X	W											
.04 AOI-09B-GAC-EFF-GRAB03 (100913)	100913	0840		X	W											
.05 AOI-09B-GAC-EFF-GRAB04 (100913)	100913	0850		X	W											

PARAMETER ANALYSIS & METHOD

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	S = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

REMARKS

24 hr Composite 10/8/13 to 10/9/13

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS). email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com; trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Chris Gauthier	Printed Name: Tabitha Faust
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp: 4.9	Date/Time: 10/9/13 13:00	Date/Time: 10-9-13 1300	Date/Time: 10/9/13 1600

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
November 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

ENVIRONMENT

Dear Mr. Robert J. Case:

Date:
December 27, 2013

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during November 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

During the month of November 2013, 8,598.28 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flowrates on average were 330 cubic feet (2,474 gallons per day) at an average 11.0 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

In accordance with Use Permit No. 2-02-RBC001, one 24-hour flow-proportional composite effluent wastewater sample and four individual effluent grab wastewater samples were collected on November 20, 2013. The 24-hour flow-proportional composite effluent wastewater sample was analyzed for:

- Ammonia-nitrogen according to United States Environmental Protection Agency (USEPA) Method 4500-NH3 D,
- BOD according to USEPA Method 10360,
- total phosphorous according to USEPA Method 4500-PE,
- total suspended solids according to USEPA Method 2540D,
- total arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc according to USEPA Method E200.8,
- semi volatile toxic organics according to USEPA Method E625M,
- total mercury according to USEPA Method EPA 245.1, and
- PCBs according to USEPA Method E608.

The four effluent wastewater samples were analyzed for:

- pH (field measured) according to USEPA Method 4500HB.
- hexane extractable material (HEM) according to USEPA Method 1664A,
- amenable cyanide according to USEPA Method 335.4/4500-CN-G, and
- volatile toxic organics plus xylenes according to USEPA Method E624.

All samples were submitted, along with proper chain-of-custody documentation, to Merit laboratory in Lansing, Michigan. Laboratory method detection limits and analytical methodology were consistent with the Michigan Department of Environmental Quality (MDEQ) guidelines. The laboratory analytical reports and chain-of-custody documents are included in Attachment 1. The quality assurance/quality control (QAQC) reports for the analytical results can be found in Attachment 2.

Due to the weather trends becoming consistly below or near freezing temperatures, in order to prevent damage to system compoents during the winter months, the treatment system was shut down with no futher effluent discharge on November 26, 2013. The system will remain down during the months of December, January, Feburary and most of March. Start up will depend on weather treands and forcasted conditions. A letter notifiying the City of Flint of system startup will be provided prior to start up.

Groundwater Treatment System Monitoring Results

Analytical results from the effluent samples collected on November 20, 2013 were reported below laboratory method detection limits and/or below permit limitations (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10
June 28, 2013 - July 31, 2013	37,150.30 - 48,831.28	11,680.98
August 1, 2013- August 31, 2013	48,831.28 - 64,419.10	15,587.82
Septmeber 1 - September 30, 2013	64,419.10 - 75,870.75	11,451.65
October 1 - October 31, 2013	75,870.75 - 84,865.93	8,995.18
November 1 - November 26, 2013	84,865.93 - 93,464.21	8,598.28

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.04	0.02	<	1	0.01	0.01	2	1	0.011	0.002	<	0.0005	0.01	0.005	<	0.004	0.005	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	11/20/2013		11/26/2013		11/21/2013		11/25/2013		11/25/2013		11/25/2013		11/25/2013		11/25/2013		11/25/2013	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	0.04		<		0.01		2		0.011		<		0.01		<		0.005	
No. of Samples	1		1		1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	<	0.0002	<	0.005	<	0.0005	0.019	0.005	7.6		1	1	<	0.005	<	0.001	<	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	11/21/2013		11/25/2013		11/25/2013		11/25/2013		11/20/2013		11/25/2013		11/22/2013		11/25/2013		11/25/2013	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		2	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		11/20/2013		11/25/2013		11/22/2013		11/25/2013		10/10/2013	
Sample Date	10/9/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		1	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		11/20/2013		11/25/2013		11/22/2013		11/25/2013		11/25/2013	
Sample Date	10/9/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		3	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		11/20/2013		11/25/2013		11/22/2013		11/25/2013		11/25/2013	
Sample Date	10/9/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	<		<		<		0.019		7.8		1.8		<		<		<	
No. of Samples	1		1		1		1		4		4		4		4		4	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	<	0.001	<	0.003	<	Varies	Dimethyl Phthalate (<)	0.01	<	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	11/25/2013		11/25/2013		11/25/2013		11/27/2013		11/21/2013	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	11/25/2013		11/25/2013		11/25/2013		NA		NA	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	11/25/2013		11/25/2013		11/25/2013		NA		NA	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	11/25/2013		11/25/2013		11/25/2013		NA		NA	
Sample Date	11/20/2013		11/20/2013		11/20/2013		11/20/2013		11/20/2013	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	<		<		<		<		<	
No. of Samples	4		4		4		1		1	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Attachment 1

Analytical Laboratory Reports

Analytical Laboratory Report

Report ID: S59095.01(01)
Generated on 12/02/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837
Email: trevor.swarthout@arcadis.com

Addtional Contacts: Andrea Krevinghaus, Tony Maffeo, Erin Kozak, Deb Newcom, Christi Kiker

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Kevin George (kgeorge@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S59095.01-S59095.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Collected Date: 11/20/2013
Submitted Date/Time: 11/20/2013 15:50
Sampled by: Trevor Swarthout
P.O. #: B0064410.2013.01500

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S59095.01	AOI-09B-GAC-EFF-COMPOSIT (112013)	Water	11/20/2013 13:00
S59095.02	AOI-09B-GAC-EFF-GRAB01 (112013)	Water	11/20/2013 09:50
S59095.03	AOI-09B-GAC-EFF-GRAB02 (112013)	Water	11/20/2013 10:00
S59095.04	AOI-09B-GAC-EFF-GRAB03 (112013)	Water	11/20/2013 10:10
S59095.05	AOI-09B-GAC-EFF-GRAB04 (112013)	Water	11/20/2013 10:20

Analytical Laboratory Report

Lab Sample ID: S59095.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (112013)
Collected Date/Time: 11/20/2013 13:00
Matrix: Water
COC Reference: BC112013.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
4	1L Amber	None	Yes	5.0	IR
1	1L Plastic	None	Yes	5.0	IR
1	125ml Plastic	HNO3	Yes	5.0	IR
1	250ml Plastic	H2SO4	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			SW3510C	11/23/13 12:26	EMR		
Extraction, PCB	Completed			SW3510C	11/21/13 8:33	ADB		
Mercury Digestion	Completed			E245.1	11/21/13 12:30	CCM		
Metal Digestion	Completed			SW3015A	11/25/13 10:45	JRH		
Inorganics								
Ammonia-N (Undistilled)	0.04	mg/L	0.02	SM4500-NH3 D	11/20/13 21:20	MJC	7664-41-7	
TBOD5 - Set	Completed	mg/L		10360	11/21/13 11:45	ASB		
TBOD5	Not detected	mg/L	1	10360	11/26/13 12:00	ASB		
Total Phosphorus	0.01	mg/L	0.01	SM4500-PE	11/21/13 15:51	MJC	7723-14-0	
Total Suspended Solids	2	mg/L	1	SM2540D	11/25/13 13:15	WAR		
Metals								
Arsenic	0.011	mg/L	0.002	E200.8	11/25/13 15:30	JRH	7440-38-2	
Cadmium	Not detected	mg/L	0.0005	E200.8	11/25/13 15:30	JRH	7440-43-9	
Chromium	0.010	mg/L	0.005	E200.8	11/25/13 15:30	JRH	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	11/25/13 15:30	JRH	7440-50-8	
Lead	0.005	mg/L	0.003	E200.8	11/25/13 15:30	JRH	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	11/21/13 16:56	CCM	7439-97-6	
Nickel	Not detected	mg/L	0.005	E200.8	11/25/13 15:30	JRH	7440-02-0	
Silver	Not detected	mg/L	0.0005	E200.8	11/25/13 15:30	JRH	7440-22-4	
Zinc	0.019	mg/L	0.005	E200.8	11/25/13 15:30	JRH	7440-66-6	
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	11/21/13 13:58	JAN	1336-36-3	
Organics - Semi-Volatiles								
SVOCs, TTO List								
Acenaphthene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	208-96-8	
Anthracene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	120-12-7	
Benzidine	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	92-87-5	

Lab Sample ID: S59095.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (112013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Benzo(a)anthracene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	7005-72-3	
Chrysene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	53-70-3	
di-n-Butyl phthalate	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	84-74-2	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	606-20-2	
di-n-Octyl phthalate	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	117-84-0	
1,2-Diphenylhydrazine	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	122-66-7	
Fluoranthene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	206-44-0	
Fluorene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	193-39-5	
Isophorone	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	78-59-1	
Naphthalene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	91-20-3	
Nitrobenzene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	100-02-7	
N-Nitrosodimethylamine	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	62-75-9	
N-Nitrosodiphenylamine	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	87-86-5	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	534-52-1	
Phenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	108-95-2	
Pyrene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	120-82-1	
2,4,6-Trichlorophenol	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	88-06-2	

Lab Sample ID: S59095.01 (continued)
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (112013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
SVOCs, TTO List (continued)								
Phenanthrene	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	85-01-8	
2,3,7,8-TCDD (Dioxin Screen)	Not detected	ug/L	10	E625M	11/27/13 14:17	PL	01746-01-6	

Analytical Laboratory Report

Lab Sample ID: S59095.02
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (112013)
Collected Date/Time: 11/20/2013 09:50
Matrix: Water
COC Reference: BC112013.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR
3	4oz Glass	HCL	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	11/26/13 10:29	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	E335.4/SM4500-CN	11/22/13 17:16	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	1	mg/L	1	E1664A	11/25/13 15:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	11/25/13 22:26	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	11/25/13 22:26	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	75-69-4	

Lab Sample ID: S59095.02 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB01 (112013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	11/25/13 22:26	WAT		
o-Xylene	Not detected	ug/L	1	E624	11/25/13 22:26	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S59095.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (112013)
Collected Date/Time: 11/20/2013 10:00
Matrix: Water
COC Reference: BC112013.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR
3	4oz Glass	HCL	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	11/26/13 10:29	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	E335.4/SM4500-CN	11/22/13 17:24	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	2	mg/L	1	E1664A	11/25/13 15:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	11/25/13 22:48	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	11/25/13 22:48	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	75-69-4	

Lab Sample ID: S59095.03 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (112013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	11/25/13 22:48	WAT		
o-Xylene	Not detected	ug/L	1	E624	11/25/13 22:48	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S59095.04
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (112013)
Collected Date/Time: 11/20/2013 10:10
Matrix: Water
COC Reference: BC112013.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR
3	4oz Glass	HCL	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	11/26/13 10:29	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	E335.4/SM4500-CN	11/22/13 17:26	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	1	mg/L	1	E1664A	11/25/13 15:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	11/25/13 23:10	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	11/25/13 23:10	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	75-69-4	

Lab Sample ID: S59095.04 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB03 (112013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	11/25/13 23:10	WAT		
o-Xylene	Not detected	ug/L	1	E624	11/25/13 23:10	WAT	95-47-6	

Analytical Laboratory Report

Lab Sample ID: S59095.05
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (112013)
Collected Date/Time: 11/20/2013 10:20
Matrix: Water
COC Reference: BC112013.2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR
3	4oz Glass	HCL	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	11/26/13 10:29	LBR		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	E335.4/SM4500-CN	11/22/13 17:28	JDP	57-12-5AM	
Oil & Grease n-Hexane Extract.	3	mg/L	1	E1664A	11/25/13 15:00	RGS		
Organics - Volatiles								
VOCs, TTO List								
Acrolein	Not detected	ug/L	10	E624	11/25/13 23:32	WAT	107-02-8	
Acrylonitrile	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	107-13-1	
Benzene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-27-4	
Bromoform	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-25-2	
Bromomethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	74-83-9	
Carbon tetrachloride	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	56-23-5	
Chlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	108-90-7	
Chloroethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-00-3	
2-Chloroethylvinyl ether	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	110-75-8	
Chloroform	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	67-66-3	
Chloromethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	124-48-1	
1,1-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-35-4	
trans-1,2-Dichloroethene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	100-41-4	
Methylene chloride	Not detected	ug/L	5	E624	11/25/13 23:32	WAT	75-09-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	127-18-4	
Toluene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	79-00-5	
Trichloroethene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	79-01-6	
Vinyl chloride	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-01-4	
1,2-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	106-46-7	
Trichlorofluoromethane	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	75-69-4	

Lab Sample ID: S59095.05 (continued)
Sample Tag: AOI-09B-GAC-EFF-GRAB04 (112013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Xylenes								
p,m-Xylene	Not detected	ug/L	2	E624	11/25/13 23:32	WAT		
o-Xylene	Not detected	ug/L	1	E624	11/25/13 23:32	WAT	95-47-6	

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC112013.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Trevor Swarthout	Sampler's Signature: [signature]

Preservative	B	C	E	E	E	A	D	A
# of Containers	1	1	1	2	2	1	1	3
Container Information	3	4	5	2	2	9	3	1

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	5 = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

PARAMETER ANALYSIS & METHOD

	Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	200.8 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	4500-CN Amenable Cyanide	624 VOCs TTO + Xylenes	REMARKS
59095 .01	AOI-09B-GAC-EFF-COMPOSIT (112013)	112013	1300	X		W	X	X	X	X	X				24 hr Composite
.02	AOI-09B-GAC-EFF-GRAB01 (112013)	112013	950		X	W						X	X	X	
.03	AOI-09B-GAC-EFF-GRAB02 (112013)	112013	1000		X	W						X	X	X	
.04	AOI-09B-GAC-EFF-GRAB03 (112013)	112013	1010		X	W						X	X	X	
.05	AOI-09B-GAC-EFF-GRAB04 (112013)	112013	1020		X	W						X	X	X	

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS).
email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com;
trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal	Printed Name: Trevor Swarthout	Printed Name: Chris Gauthier	Printed Name: Kevin George
☑ Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature: [signature]	Signature: [signature]	Signature: Kevin George
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp:	Date/Time: 11.20.13 1430	Date/Time: 11.20.13 1430	Date/Time: 11/20/13 1550

ARCADIS

Attachment 2

QAQC Analytical Reports

Quality Control Report

Report ID: QC-S59095.01(01)
Generated on 12/09/2013

Report to

Attention: Trevor Swarthout
Arcadis
10559 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 248-994-2310 FAX: 810-229-8837

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S59095.01-S59095.05
Project: B0064410.2013.01500/Buick City Site #1295 Task 1500
Submitted Date/Time: 11/20/2013 15:50
Sampled by: Trevor Swarthout
P.O. #: B0064410.2013.01500

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-6)
Prep Batch Summary (Pages 7-8)
Surrogates per Lab Sample (Pages 9-13)
Surrogates per QC Sample (Pages 14-16)
Batch QC Results (Pages 17-38)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S59095.01
Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (112013)
Collected Date/Time: 11/20/2013 13:00
Matrix: Water
COC Reference: BC112013.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	SM4500-NH3 D	11/20/13 21:20	AMN131120	AMN131120	No	BLK/LCS/MS/DUP
Total Phosphorus	SM4500-PE	11/21/13 15:51	PHS131121	PHS131121	No	BLK/LCS/MS/DUP
Total Suspended Solids	SM2540D	11/25/13 13:15	TSS131125B	TSS131125B	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Cadmium	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Chromium	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Copper	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Lead	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Mercury	E245.1	11/21/13 16:56	HG2-13-1121A	HGD-112113-2	No	LCS/BLK/MS/MSD
Nickel	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Silver	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Zinc	E200.8	11/25/13 15:30	MT-13-1125A	MTD-112513-3	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
PCB	E608	11/21/13 13:58	A131121	PA131121W01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
SVOCs, TTO List	E625M	11/27/13 14:17	Z131127	SF131123W01	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S59095.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (112013)

Collected Date/Time: 11/20/2013 09:50

Matrix: Water

COC Reference: BC112013.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:16	CN131122-W1	CN131122-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01	OGHEX131125W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	11/25/13 22:26	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	11/25/13 22:26	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S59095.03
Sample Tag: AOI-09B-GAC-EFF-GRAB02 (112013)
Collected Date/Time: 11/20/2013 10:00
Matrix: Water
COC Reference: BC112013.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:24	CN131122-W1	CN131122-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01	OGHEX131125W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	11/25/13 22:48	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	11/25/13 22:48	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S59095.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (112013)

Collected Date/Time: 11/20/2013 10:10

Matrix: Water

COC Reference: BC112013.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:26	CN131122-W1	CN131122-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01	OGHEX131125W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	11/25/13 23:10	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	11/25/13 23:10	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S59095.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (112013)

Collected Date/Time: 11/20/2013 10:20

Matrix: Water

COC Reference: BC112013.2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:28	CN131122-W1	CN131122-W1	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01	OGHEX131125W01	No	BLK/LCS
Organics - Volatiles						
VOCs, TTO List	E624	11/25/13 23:32	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS
Xylenes	E624	11/25/13 23:32	131125A7	VF131125W1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN131120

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	Ammonia-N (Undistilled)	SM4500-NH3 D	11/20/13 21:20	AMN131120

Inorganics, Prep Batch ID: CN131122-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.02	Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:16	CN131122-W1
S59095.03	Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:24	CN131122-W1
S59095.04	Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:26	CN131122-W1
S59095.05	Amenable Cyanide	E335.4/SM4500-CN	11/22/13 17:28	CN131122-W1

Inorganics, Prep Batch ID: OGHEX131125W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.02	Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01
S59095.03	Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01
S59095.04	Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01
S59095.05	Oil & Grease n-Hexane Extract.	E1664A	11/25/13 15:00	OGHEX131125W01

Inorganics, Prep Batch ID: PHS131121

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	Total Phosphorus	SM4500-PE	11/21/13 15:51	PHS131121

Inorganics, Prep Batch ID: TSS131125B

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	Total Suspended Solids	SM2540D	11/25/13 13:15	TSS131125B

Metals, Prep Batch ID: HGD-112113-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	Mercury	E245.1	11/21/13 16:56	HG2-13-1121A

Metals, Prep Batch ID: MTD-112513-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	Arsenic	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Cadmium	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Chromium	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Copper	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Lead	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Nickel	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Silver	E200.8	11/25/13 15:30	MT-13-1125A
S59095.01	Zinc	E200.8	11/25/13 15:30	MT-13-1125A

Organics - PCBs/Pesticides, Prep Batch ID: PA131121W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	PCB	E608	11/21/13 13:58	A131121

QC Report - Prep Batch Summary

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.01	SVOCs, TTO List	E625M	11/27/13 14:17	Z131127

Organics - Volatiles, Prep Batch ID: VF131125W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S59095.02	VOCs, TTO List	E624	11/25/13 22:26	131125A7
S59095.02	Xylenes	E624	11/25/13 22:26	131125A7
S59095.03	VOCs, TTO List	E624	11/25/13 22:48	131125A7
S59095.03	Xylenes	E624	11/25/13 22:48	131125A7
S59095.04	VOCs, TTO List	E624	11/25/13 23:10	131125A7
S59095.04	Xylenes	E624	11/25/13 23:10	131125A7
S59095.05	VOCs, TTO List	E624	11/25/13 23:32	131125A7
S59095.05	Xylenes	E624	11/25/13 23:32	131125A7

QC Report - Surrogates per Lab Sample

Lab Sample ID: S59095.01

Sample Tag: AOI-09B-GAC-EFF-COMPOSIT (112013)

Collected Date/Time: 11/20/2013 13:00

Matrix: Water

COC Reference: BC112013.2

Organics - PCBs/Pesticides, Analysis: PCB

Run in Batch: A131121, Run Date: 11/21/2013 13:58, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**73.70**	34.1	137.1
DCBP		**86.10**	30.0	138.6

Organics - Semi-Volatiles, Analysis: SVOCs, TTO List

Run in Batch: Z131127, Run Date: 11/27/2013 14:17, Matrix: WW, Dilution: 10

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**38.00**	10.0	110.0
2-Fluorobiphenyl		**65.50**	10.0	116.0
Nitrobenzene-D5		**55.10**	10.0	114.0
Phenol-D5		**30.70**	10.0	110.0
2,4,6-Tribromophenol		**47.30**	10.0	123.0
Terphenyl-D14		**65.10**	10.0	141.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S59095.02

Sample Tag: AOI-09B-GAC-EFF-GRAB01 (112013)

Collected Date/Time: 11/20/2013 09:50

Matrix: Water

COC Reference: BC112013.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131125A7, Run Date: 11/25/2013 22:26, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.40**	83.0	119.0
1,2-Dichloroethane-D4		**107.00**	77.0	121.0
Toluene-D8		**98.60**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S59095.03

Sample Tag: AOI-09B-GAC-EFF-GRAB02 (112013)

Collected Date/Time: 11/20/2013 10:00

Matrix: Water

COC Reference: BC112013.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131125A7, Run Date: 11/25/2013 22:48, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.80**	83.0	119.0
1,2-Dichloroethane-D4		**105.80**	77.0	121.0
Toluene-D8		**97.20**	86.0	118.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S59095.04

Sample Tag: AOI-09B-GAC-EFF-GRAB03 (112013)

Collected Date/Time: 11/20/2013 10:10

Matrix: Water

COC Reference: BC112013.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131125A7, Run Date: 11/25/2013 23:10, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.40**	83.0	119.0
1,2-Dichloroethane-D4		**107.80**	77.0	121.0
Toluene-D8		**97.20**	86.0	118.0

Lab Sample ID: S59095.05

Sample Tag: AOI-09B-GAC-EFF-GRAB04 (112013)

Collected Date/Time: 11/20/2013 10:20

Matrix: Water

COC Reference: BC112013.2

Organics - Volatiles, Analysis: VOCs, TTO List

Organics - Volatiles, Analysis: Xylenes

Run in Batch: 131125A7, Run Date: 11/25/2013 23:32, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.60**	83.0	119.0
1,2-Dichloroethane-D4		**108.40**	77.0	121.0
Toluene-D8		**94.20**	86.0	118.0

QC Report - Surrogates per QC Sample

Organics - PCBs/Pesticides, Prep Batch ID: PA131121W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13112107.slcs-w.01

Run in Batch: A131121, Run Date: 11/21/2013 11:26, Prep Date: 11/21/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**65.20**	34.1	137.1
DCBP		**91.90**	30.0	138.6

Blank (BLK)

Lab Sample ID: a13112106.sblk-w.01

Run in Batch: A131121, Run Date: 11/21/2013 11:15, Prep Date: 11/21/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**114.90**	34.1	137.1
DCBP		**113.30**	30.0	138.6

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13112108.slcs-w.01d, Parent Sample ID: a13112107.slcs-w.01

Run in Batch: A131121, Run Date: 11/21/2013 11:38, Prep Date: 11/21/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
TCX		**66.40**	34.1	137.1
DCBP		**94.30**	30.0	138.6

QC Report - Surrogates per QC Sample

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01

QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:11, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**71.00**	10.0	110.0
2-Fluorobiphenyl		**80.20**	10.0	116.0
Nitrobenzene-D5		**69.60**	10.0	114.0
Phenol-D5		**77.40**	10.0	110.0
2,4,6-Tribromophenol		**77.20**	10.0	123.0
Terphenyl-D14		**78.10**	10.0	141.0

Blank (BLK)

Lab Sample ID: z131127.blkw27a

Run in Batch: Z131127, Run Date: 11/27/2013 12:37, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**83.50**	10.0	110.0
2-Fluorobiphenyl		**93.10**	10.0	116.0
Nitrobenzene-D5		**82.10**	10.0	114.0
Phenol-D5		**91.40**	10.0	110.0
2,4,6-Tribromophenol		**93.50**	10.0	123.0
Terphenyl-D14		**96.30**	10.0	141.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z131127.lcsdw27a, Parent Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:44, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
2-Fluorophenol		**80.70**	10.0	110.0
2-Fluorobiphenyl		**90.80**	10.0	116.0
Nitrobenzene-D5		**80.70**	10.0	114.0
Phenol-D5		**88.90**	10.0	110.0
2,4,6-Tribromophenol		**86.00**	10.0	123.0
Terphenyl-D14		**90.20**	10.0	141.0

Organics - Volatiles, Prep Batch ID: VF131125W1

QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 13:40, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**97.00**	83.0	119.0
1,2-Dichloroethane-D4		**110.20**	77.0	121.0
Toluene-D8		**96.20**	86.0	118.0

Blank (BLK)

Lab Sample ID: 131125a7.blkw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 16:35, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.40**	83.0	119.0
1,2-Dichloroethane-D4		**107.60**	77.0	121.0
Toluene-D8		**93.60**	86.0	118.0

Matrix Spike (MS)

Lab Sample ID: 131125a7.5904605m, Parent Sample ID: S59046.04

Run in Batch: 131125A7, Run Date: 11/25/2013 14:23, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**102.20**	83.0	119.0
1,2-Dichloroethane-D4		**112.60**	77.0	121.0
Toluene-D8		**99.20**	86.0	118.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 131125a7.5904606n, Parent Sample ID: 131125a7.5904605m

Run in Batch: 131125A7, Run Date: 11/25/2013 14:45, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**99.60**	83.0	119.0
1,2-Dichloroethane-D4		**115.40**	77.0	121.0
Toluene-D8		**98.40**	86.0	118.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 131125a7.lcsw25b, Parent Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 14:02, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.00**	83.0	119.0
1,2-Dichloroethane-D4		**112.40**	77.0	121.0
Toluene-D8		**98.40**	86.0	118.0

Inorganics, Prep Batch ID: AMN131120

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN131120.LRB1

Run in Batch: AMN131120, Run Date: 11/20/2013 18:27, Prep Date: 11/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Ammonia-N (Undistilled)		**ND**	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN131120.LCS1

Run in Batch: AMN131120, Run Date: 11/20/2013 19:05, Prep Date: 11/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**99**	90	110

Matrix Spike (MS)

Lab Sample ID: AMN131120.MS1, Parent Sample ID: S59047.01

Run in Batch: AMN131120, Run Date: 11/20/2013 19:44, Prep Date: 11/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Ammonia-N (Undistilled)		**102**	80	120

Duplicate (DUP)

Lab Sample ID: AMN131120.DP1, Parent Sample ID: S59092.01

Run in Batch: AMN131120, Run Date: 11/20/2013 20:31, Prep Date: 11/20/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Ammonia-N (Undistilled)		**1.2**	20

Inorganics, Prep Batch ID: CN131122-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN131122-W1.LRB1

Run in Batch: CN131122-W1, Run Date: 11/22/2013 17:00, Prep Date: 11/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Amenable Cyanide		**ND**	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN131122-W1.LCS1

Run in Batch: CN131122-W1, Run Date: 11/22/2013 17:06, Prep Date: 11/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**102**	90	110

Matrix Spike (MS)

Lab Sample ID: CN131122-W1.MS1, Parent Sample ID: S59095.02

Run in Batch: CN131122-W1, Run Date: 11/22/2013 17:20, Prep Date: 11/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Amenable Cyanide		**91**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN131122-W1.MSD1, Parent Sample ID: CN131122-W1.MS1

Run in Batch: CN131122-W1, Run Date: 11/22/2013 17:22, Prep Date: 11/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Amenable Cyanide		**92**	80	120	**1**	15

Duplicate (DUP)

Lab Sample ID: CN131122-W1.DP1, Parent Sample ID: S59095.02

Run in Batch: CN131122-W1, Run Date: 11/22/2013 17:18, Prep Date: 11/22/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Amenable Cyanide		**<1**	15

Inorganics, Prep Batch ID: OGHEX131125W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX131125W01.LRB1

Run in Batch: OGHEX131125W01, Run Date: 11/25/2013 15:00, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Oil & Grease n-Hexane Extract.		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX131125W01.LCS1

Run in Batch: OGHEX131125W01, Run Date: 11/25/2013 15:00, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**96**	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX131125W01.LCS2

Run in Batch: OGHEX131125W01, Run Date: 11/25/2013 15:00, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Oil & Grease n-Hexane Extract.		**96**	78	114

Inorganics, Prep Batch ID: PHS131121

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS131121.LRB1

Run in Batch: PHS131121, Run Date: 11/21/2013 15:24, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS131121.LRB2

Run in Batch: PHS131121, Run Date: 11/21/2013 16:06, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Phosphorus		**ND**	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS131121.LCS1

Run in Batch: PHS131121, Run Date: 11/21/2013 15:33, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**96**	90	110

Matrix Spike (MS)

Lab Sample ID: PHS131121.MS1, Parent Sample ID: S59061.01

Run in Batch: PHS131121, Run Date: 11/21/2013 16:04, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Phosphorus		**94**	80	120

Duplicate (DUP)

Lab Sample ID: PHS131121.DP1, Parent Sample ID: S59069.01

Run in Batch: PHS131121, Run Date: 11/21/2013 16:01, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Phosphorus		**7.1**	20

Inorganics, Prep Batch ID: TSS131125B

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS131125B.LRB1

Run in Batch: TSS131125B, Run Date: 11/25/2013 13:15, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Total Suspended Solids		**ND**	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS131125B.LCS1

Run in Batch: TSS131125B, Run Date: 11/25/2013 13:15, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Total Suspended Solids		**102**	90	110

Duplicate (DUP)

Lab Sample ID: TSS131125B.DP1, Parent Sample ID: S59080.01

Run in Batch: TSS131125B, Run Date: 11/25/2013 13:15, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**RPD**	RPD CL
Total Suspended Solids		**2**	15

Metals, Prep Batch ID: HGD-112113-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-13-1121A.048.LCS

Run in Batch: HG2-13-1121A, Run Date: 11/21/2013 16:38, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**109**	85	115

Blank (BLK)

Lab Sample ID: HG2-13-1121A.049.LRB

Run in Batch: HG2-13-1121A, Run Date: 11/21/2013 16:40, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**Conc**	RDL	Units
Mercury		**ND**	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-13-1121A.059.MS, Parent Sample ID: S59059.11

Run in Batch: HG2-13-1121A, Run Date: 11/21/2013 17:00, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL
Mercury		**101**	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-13-1121A.060.MSD, Parent Sample ID: HG2-13-1121A.059.MS

Run in Batch: HG2-13-1121A, Run Date: 11/21/2013 17:02, Prep Date: 11/21/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Mercury		**101**	80	120	**0**	20

Metals, Prep Batch ID: MTD-112513-3

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT-13-1125A.018.LCS

Run in Batch: MT-13-1125A, Run Date: 11/25/2013 14:32, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**100**	85	115
Cadmium		**101**	85	115
Chromium		**88**	85	115
Copper		**97**	85	115
Lead		**100**	85	115
Nickel		**94**	85	115
Silver		**97**	85	115
Zinc		**98**	85	115

Blank (BLK)

Lab Sample ID: MT-13-1125A.019.LRB

Run in Batch: MT-13-1125A, Run Date: 11/25/2013 14:39, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		**ND**	0.0006	mg/L
Cadmium		**ND**	0.0001	mg/L
Chromium		**ND**	0.001	mg/L
Copper		**ND**	0.004	mg/L
Lead		**ND**	0.0006	mg/L
Nickel		**ND**	0.002	mg/L
Silver		**ND**	0.0001	mg/L
Zinc		**ND**	0.005	mg/L

Matrix Spike (MS)

Lab Sample ID: MT-13-1125A.030.MS, Parent Sample ID: S59095.01

Run in Batch: MT-13-1125A, Run Date: 11/25/2013 15:34, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		**103**	75	125
Cadmium		**96**	75	125
Chromium		**106**	75	125
Copper		**102**	75	125
Lead		**99**	75	125
Nickel		**102**	75	125
Silver		**78**	75	125
Zinc		**98**	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT-13-1125A.031.MSD, Parent Sample ID: MT-13-1125A.030.MS

Run in Batch: MT-13-1125A, Run Date: 11/25/2013 15:37, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		**107**	75	125	**4**	20
Cadmium		**98**	75	125	**2**	20
Chromium		**108**	75	125	**2**	20
Copper		**104**	75	125	**1**	20
Lead		**100**	75	125	**0**	20
Nickel		**103**	75	125	**0**	20
Silver		**84**	75	125	**7**	20

Metals, Prep Batch ID: MTD-112513-3 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT-13-1125A.031.MSD, Parent Sample ID: MT-13-1125A.030.MS

Run in Batch: MT-13-1125A, Run Date: 11/25/2013 15:37, Prep Date: 11/25/2013, Matrix: Liquid, Dilution: 5

Analyte	Flags	**% Rec**	LCL	UCL	**RPD**	RPD CL
Zinc		**100**	75	125	**2**	20

Organics - PCBs/Pesticides, Prep Batch ID: PA131121W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: a13112107.slcs-w.01

Run in Batch: A131121, Run Date: 11/21/2013 11:26, Prep Date: 11/21/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PCB-1016/1260		**94.12**	50.0	125.0

Blank (BLK)

Lab Sample ID: a13112106.sblk-w.01

Run in Batch: A131121, Run Date: 11/21/2013 11:15, Prep Date: 11/21/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PCB-1016		**ND**	0.10	ug/L
PCB-1221		**ND**	0.10	ug/L
PCB-1232		**ND**	0.10	ug/L
PCB-1242		**ND**	0.10	ug/L
PCB-1248		**ND**	0.10	ug/L
PCB-1254		**ND**	0.10	ug/L
PCB-1260		**ND**	0.10	ug/L

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: a13112108.slcs-w.01d, Parent Sample ID: a13112107.slcs-w.01

Run in Batch: A131121, Run Date: 11/21/2013 11:38, Prep Date: 11/21/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PCB-1016/1260		**96.24**	50.0	125.0	**2.2**	20.0

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:11, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Benzaldehyde	*	**27.80**	35.6	137.2
Phenol		**77.42**	10.0	130.4
2-Chlorophenol		**72.18**	35.5	114.1
Bis(2-chloroethyl)ether		**71.74**	43.4	101.8
Bis(2-chloroisopropyl)ether		**92.78**	33.2	105.8
Acetophenone		**74.98**	48.3	105.9
Hexachloroethane		**69.70**	23.8	138.1
N-Nitrosodi-n-propylamine		**72.32**	35.8	109.3
Nitrobenzene		**106.66**	41.7	110.1
Isophorone		**83.82**	44.9	107.5
2-Nitrophenol		**67.12**	54.4	109.5
2,4-Dimethylphenol		**80.18**	43.4	114.9
Bis(2-chloroethoxy)methane		**75.14**	48.3	105.4
2,4-Dichlorophenol		**72.16**	57.7	115.6
Naphthalene		**71.94**	32.9	135.8
4-Chloroaniline		**42.44**	33.4	89.4
Hexachlorobutadiene		**66.60**	30.2	119.4
Caprolactam		**73.48**	10.0	113.1
4-Chloro-3-methylphenol		**72.32**	39.0	123.2
2-Methylnaphthalene		**68.56**	25.5	165.5
Hexachlorocyclopentadiene		**55.38**	10.0	271.8
2,4,6-Trichlorophenol		**68.94**	47.8	117.4
2,4,5-Trichlorophenol		**70.10**	48.9	118.8
1,1'-Biphenyl		**77.34**	49.7	110.7
2-Chloronaphthalene		**74.42**	50.3	108.3
2-Nitroaniline		**72.88**	53.4	119.9
Acenaphthylene		**83.34**	16.9	140.7
Dimethyl Phthalate		**80.08**	49.3	118.4
2,6-Dinitrotoluene		**71.38**	48.0	119.1
3-Nitroaniline		**59.54**	42.1	109.0
Acenaphthene		**77.22**	34.8	124.7
2,4-Dinitrophenol		**59.96**	10.0	171.2
Dibenzofuran		**77.96**	52.1	111.9
4-Nitrophenol		**76.84**	15.4	122.0
2,4-Dinitrotoluene		**70.28**	35.8	126.7
Fluorene		**79.00**	37.1	110.3
Diethyl phthalate		**82.04**	48.1	118.0
4-Chlorophenyl phenyl ether		**79.20**	52.2	116.5
4-Nitroaniline		**65.14**	45.8	119.7
4,6-Dinitro-2-methylphenol		**62.90**	18.7	149.0
N-Nitrosodiphenylamine		**79.86**	10.0	104.2
4-Bromophenyl phenyl ether		**74.30**	44.5	116.9
Hexachlorobenzene		**73.12**	45.2	118.5
Atrazine		**68.46**	52.5	143.1
Pentachlorophenol		**67.34**	10.3	139.1
Phenanthrene		**81.82**	31.8	123.3

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:11, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Anthracene		**79.62**	38.1	115.5
Carbazole		**70.42**	44.3	128.8
di-N-butyl phthalate		**78.72**	48.1	121.8
Fluoranthene		**78.62**	43.0	127.9
Pyrene		**85.00**	37.8	131.4
Butyl benzyl phthalate		**80.24**	47.4	121.6
Benzo(a)anthracene		**81.98**	40.7	115.5
3,3'-Dichlorobenzidine		**70.10**	37.0	97.2
Chrysene		**85.70**	28.9	136.7
Bis(2-ethylhexyl)phthalate		**80.70**	45.2	126.2
Di-n-octyl phthalate		**82.76**	45.7	123.1
Benzo(b)fluoranthene		**76.74**	43.3	119.4
Benzo(k)fluoranthene		**70.04**	41.2	116.9
Benzo(a)pyrene		**84.14**	51.2	133.4
Indeno(1,2,3-cd)pyrene		**60.50**	41.5	116.9
Dibenzo(ah)anthracene		**60.02**	33.8	132.4
Benzo(ghi)perylene		**55.34**	36.7	122.1
1-methylnaphthalene		**91.18**	10.0	133.6
1,4-Dichlorobenzene		**70.28**	20.7	137.7
1,2-Dichlorobenzene		**72.18**	9.6	166.2
o-Cresol		**86.84**	39.1	109.4
3,4-methylphenol		**71.71**	36.4	115.4
1,3-Dichlorobenzene		**69.56**	36.8	105.8
1,2-Diphenylhydrazine		**75.60**	40.2	136.4
1,2,4-Trichlorobenzene		**70.54**	32.2	118.4

Blank (BLK)

Lab Sample ID: z131127.blkw27a

Run in Batch: Z131127, Run Date: 11/27/2013 12:37, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acenaphthene		**ND**	0.5	ug/l
Acenaphthylene		**ND**	0.5	ug/l
Anthracene		**ND**	0.5	ug/l
Benzidine		**ND**	0.5	ug/l
Benzo(a)anthracene		**ND**	0.5	ug/l
Benzo(b)fluoranthene		**ND**	0.5	ug/l
Benzo(k)fluoranthene		**ND**	0.5	ug/l
Benzo(ghi)perylene		**ND**	0.5	ug/l
Benzo(a)pyrene		**ND**	0.5	ug/l
bis(2-Chloroethoxy)methane		**ND**	0.5	ug/l
bis(2-Chloroethyl)ether		**ND**	0.5	ug/l
bis(2-Chloroisopropyl)ether		**ND**	0.5	ug/l
bis(2-Ethylhexyl)phthalate		**ND**	0.5	ug/l
4-Bromophenyl phenyl ether		**ND**	0.5	ug/l
Butyl benzyl phthalate		**ND**	0.5	ug/l
2-Chloronaphthalene		**ND**	0.5	ug/l

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Blank (BLK) (continued)

Lab Sample ID: z131127.blkw27a

Run in Batch: Z131127, Run Date: 11/27/2013 12:37, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
4-Chloro-3-methylphenol		**ND**	0.5	ug/l
2-Chlorophenol		**ND**	0.5	ug/l
4-Chlorophenyl phenyl ether		**ND**	0.5	ug/l
Chrysene		**ND**	0.5	ug/l
Dibenzo(ah)anthracene		**ND**	0.5	ug/l
di-n-Butyl phthalate		**ND**	0.5	ug/l
3,3'-Dichlorobenzidine		**ND**	0.5	ug/l
2,4-Dichlorophenol		**ND**	0.5	ug/l
Diethyl phthalate		**ND**	0.5	ug/l
Dimethyl phthalate		**ND**	0.5	ug/l
2,4-Dimethylphenol		**ND**	0.5	ug/l
2,4-Dinitrophenol		**ND**	0.5	ug/l
2,4-Dinitrotoluene		**ND**	0.5	ug/l
2,6-Dinitrotoluene		**ND**	0.5	ug/l
1,2-Diphenylhydrazine		**ND**	0.5	ug/l
Fluoranthene		**ND**	0.5	ug/l
Fluorene		**ND**	0.5	ug/l
Hexachlorobenzene		**ND**	0.5	ug/l
Hexachlorobutadiene		**ND**	0.5	ug/l
Hexachlorocyclopentadiene		**ND**	0.5	ug/l
Hexachloroethane		**ND**	0.5	ug/l
Indeno(1,2,3-cd)pyrene		**ND**	0.5	ug/l
Isophorone		**ND**	0.5	ug/l
Naphthalene		**ND**	0.5	ug/l
Nitrobenzene		**ND**	0.5	ug/l
2-Nitrophenol		**ND**	0.5	ug/l
4-Nitrophenol		**ND**	0.5	ug/l
N-Nitrosodimethylamine		**ND**	0.5	ug/l
N-Nitrosodiphenylamine		**ND**	0.5	ug/l
Pentachlorophenol		**ND**	0.5	ug/l
4,6-Dinitro-2-methylphenol		**ND**	0.5	ug/l
Phenol		**ND**	0.5	ug/l
Pyrene		**ND**	0.5	ug/l
1,2,4-Trichlorobenzene		**ND**	0.5	ug/l
2,4,6-Trichlorophenol		**ND**	0.5	ug/l
Phenanthrene		**ND**	0.5	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: z131127.lcsdw27a, Parent Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:44, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Benzaldehyde	*	**32.42**	35.6	137.2	**15.3**	30.0
Phenol		**91.72**	10.0	130.4	**16.9**	30.0
2-Chlorophenol		**84.56**	35.5	114.1	**15.8**	30.0
Bis(2-chloroethyl)ether		**85.00**	43.4	101.8	**16.9**	30.0
Bis(2-chloroisopropyl)ether	*	**107.48**	33.2	105.8	**14.7**	30.0

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: z131127.lcsdw27a, Parent Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:44, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Acetophenone		**87.98**	48.3	105.9	**16.0**	30.0
Hexachloroethane		**80.08**	23.8	138.1	**13.9**	30.0
N-Nitrosodi-n-propylamine		**85.44**	35.8	109.3	**16.6**	30.0
Nitrobenzene	*	**126.80**	41.7	110.1	**17.3**	30.0
Isophorone		**99.02**	44.9	107.5	**16.6**	30.0
2-Nitrophenol		**80.22**	54.4	109.5	**17.8**	30.0
2,4-Dimethylphenol		**96.54**	43.4	114.9	**18.5**	30.0
Bis(2-chloroethoxy)methane		**89.84**	48.3	105.4	**17.8**	30.0
2,4-Dichlorophenol		**85.02**	57.7	115.6	**16.4**	30.0
Naphthalene		**85.62**	32.9	135.8	**17.4**	30.0
4-Chloroaniline		**48.66**	33.4	89.4	**13.7**	30.0
Hexachlorobutadiene		**78.56**	30.2	119.4	**16.5**	30.0
Caprolactam		**85.46**	10.0	113.1	**15.1**	30.0
4-Chloro-3-methylphenol		**85.76**	39.0	123.2	**17.0**	30.0
2-Methylnaphthalene		**82.10**	25.5	165.5	**18.0**	30.0
Hexachlorocyclopentadiene		**56.54**	10.0	271.8	**2.1**	30.0
2,4,6-Trichlorophenol		**81.12**	47.8	117.4	**16.2**	30.0
2,4,5-Trichlorophenol		**80.22**	48.9	118.8	**13.5**	30.0
1,1'-Biphenyl		**89.52**	49.7	110.7	**14.6**	30.0
2-Chloronaphthalene		**86.90**	50.3	108.3	**15.5**	30.0
2-Nitroaniline		**84.66**	53.4	119.9	**15.0**	30.0
Acenaphthylene		**96.04**	16.9	140.7	**14.2**	30.0
Dimethyl Phthalate		**91.72**	49.3	118.4	**13.6**	30.0
2,6-Dinitrotoluene		**83.52**	48.0	119.1	**15.7**	30.0
3-Nitroaniline		**67.02**	42.1	109.0	**11.8**	30.0
Acenaphthene		**90.10**	34.8	124.7	**15.4**	30.0
2,4-Dinitrophenol		**67.52**	10.0	171.2	**11.9**	30.0
Dibenzofuran		**90.70**	52.1	111.9	**15.1**	30.0
4-Nitrophenol		**87.24**	15.4	122.0	**12.7**	30.0
2,4-Dinitrotoluene		**81.44**	35.8	126.7	**14.7**	30.0
Fluorene		**90.86**	37.1	110.3	**14.0**	30.0
Diethyl phthalate		**92.82**	48.1	118.0	**12.3**	30.0
4-Chlorophenyl phenyl ether		**90.56**	52.2	116.5	**13.4**	30.0
4-Nitroaniline		**74.20**	45.8	119.7	**13.0**	30.0
4,6-Dinitro-2-methylphenol		**75.28**	18.7	149.0	**17.9**	30.0
N-Nitrosodiphenylamine		**94.76**	10.0	104.2	**17.1**	30.0
4-Bromophenyl phenyl ether		**87.14**	44.5	116.9	**15.9**	30.0
Hexachlorobenzene		**87.74**	45.2	118.5	**18.2**	30.0
Atrazine		**82.88**	52.5	143.1	**19.1**	30.0
Pentachlorophenol		**78.66**	10.3	139.1	**15.4**	30.0
Phenanthrene		**96.56**	31.8	123.3	**16.5**	30.0
Anthracene		**92.80**	38.1	115.5	**15.3**	30.0
Carbazole		**81.96**	44.3	128.8	**15.1**	30.0
di-N-butyl phthalate		**91.68**	48.1	121.8	**15.2**	30.0
Fluoranthene		**90.12**	43.0	127.9	**13.6**	30.0
Pyrene		**97.12**	37.8	131.4	**13.3**	30.0

Organics - Semi-Volatiles, Prep Batch ID: SF131123W01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: z131127.lcsdw27a, Parent Sample ID: z131127.lcsw27a

Run in Batch: Z131127, Run Date: 11/27/2013 13:44, Prep Date: 11/23/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Butyl benzyl phthalate		**92.74**	47.4	121.6	**14.5**	30.0
Benzo(a)anthracene		**94.04**	40.7	115.5	**13.7**	30.0
3,3'-Dichlorobenzidine		**78.64**	37.0	97.2	**11.5**	30.0
Chrysene		**98.40**	28.9	136.7	**13.8**	30.0
Bis(2-ethylhexyl)phthalate		**92.98**	45.2	126.2	**14.1**	30.0
Di-n-octyl phthalate		**97.86**	45.7	123.1	**16.7**	30.0
Benzo(b)fluoranthene		**88.62**	43.3	119.4	**14.4**	30.0
Benzo(k)fluoranthene		**82.78**	41.2	116.9	**16.7**	30.0
Benzo(a)pyrene		**95.28**	51.2	133.4	**12.4**	30.0
Indeno(1,2,3-cd)pyrene		**71.66**	41.5	116.9	**16.9**	30.0
Dibenzo(ah)anthracene		**72.88**	33.8	132.4	**19.4**	30.0
Benzo(ghi)perylene		**67.90**	36.7	122.1	**20.4**	30.0
1-methylnaphthalene		**109.18**	10.0	133.6	**18.0**	30.0
1,4-Dichlorobenzene		**82.00**	20.7	137.7	**15.4**	30.0
1,2-Dichlorobenzene		**84.18**	9.6	166.2	**15.3**	30.0
o-Cresol		**100.98**	39.1	109.4	**15.1**	30.0
3,4-methylphenol		**84.50**	36.4	115.4	**16.4**	30.0
1,3-Dichlorobenzene		**80.54**	36.8	105.8	**14.6**	30.0
1,2-Diphenylhydrazine		**89.94**	40.2	136.4	**17.3**	30.0
1,2,4-Trichlorobenzene		**83.82**	32.2	118.4	**17.2**	30.0

Organics - Volatiles, Prep Batch ID: VF131125W1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 13:40, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,1,2-Trichloro-1,2,2-trifluoroethane		**89.26**	75.1	135.9
Diethyl ether		**71.10**	67.4	121.2
Acetone		**112.84**	29.9	161.5
Methyl iodide		**88.82**	68.8	116.4
Carbon disulfide		**87.58**	63.8	137.4
Methyl acetate		**96.18**	64.7	125.4
tert-Methyl butyl ether		**95.14**	73.2	122.4
Acrylonitrile		**94.20**	69.9	128.9
2-Butanone		**106.86**	44.0	134.4
Dichlorodifluoromethane		**103.58**	10.0	222.8
Chloromethane		**107.16**	23.8	166.5
Vinyl Chloride		**96.94**	43.5	149.1
Bromomethane		**96.38**	56.8	151.3
Chloroethane		**95.40**	53.4	149.4
Trichlorofluoromethane		**113.04**	59.7	151.8
1,1-Dichloroethene		**101.42**	69.6	139.4
Methylene Chloride		**92.14**	73.3	121.1
trans-1,2-Dichloroethene		**98.26**	73.6	129.3
1,1-Dichloroethane		**97.08**	71.5	126.2
cis-1,2-Dichloroethene		**93.34**	76.6	122.1
Tetrahydrofuran		**90.56**	59.0	117.9
Chloroform		**101.04**	78.4	124.0
Bromochloromethane		**95.38**	78.2	120.8
1,1,1-Trichloroethane		**112.28**	79.4	130.9
Cyclohexane		**98.88**	10.0	169.1
4-Methyl-2-pentanone		**91.78**	71.6	125.2
2-Hexanone		**110.16**	55.4	136.9
Carbon Tetrachloride		**114.78**	72.6	133.0
Benzene		**90.32**	79.9	124.9
1,2-Dichloroethane		**107.52**	76.0	126.3
Trichloroethene		**96.32**	79.7	124.2
1,2-Dichloropropane		**92.32**	78.6	126.4
Bromodichloromethane		**103.28**	80.4	128.2
Methyl cyclohexane		**94.22**	76.6	131.3
Dibromomethane		**95.96**	76.9	122.1
cis-1,3-Dichloropropene		**92.62**	79.8	129.9
Toluene		**91.58**	79.8	124.5
trans-1,3-Dichloropropene		**96.92**	74.0	131.3
1,1,2-Trichloroethane		**91.36**	78.7	123.1
Tetrachloroethene		**92.14**	74.5	124.5
trans-1,4-Dichloro-2-butene		**102.88**	68.6	135.4
Dibromochloromethane		**100.54**	74.6	127.2
1,2-Dibromoethane		**98.28**	70.3	133.7
Chlorobenzene		**92.36**	79.2	122.7
1,1,1,2-Tetrachloroethane		**106.48**	80.3	128.2
Ethylbenzene		**96.74**	79.5	129.1

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 13:40, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
p,m-Xylene		**92.75**	79.4	132.2
o-Xylene		**98.56**	80.2	131.0
Styrene		**94.30**	69.5	126.7
Isopropylbenzene		**97.74**	74.4	121.5
Bromoform		**97.60**	69.4	128.0
1,1,2,2-Tetrachloroethane		**90.98**	79.8	126.3
1,2,3-Trichloropropane		**95.68**	78.3	138.8
n-Propylbenzene		**96.08**	82.0	130.7
Bromobenzene		**95.74**	78.7	124.6
1,3,5-Trimethylbenzene		**96.36**	81.3	128.9
tert-Butylbenzene		**105.18**	80.7	128.9
1,2,4-Trimethylbenzene		**94.24**	81.4	130.8
sec-Butylbenzene		**97.16**	77.4	129.8
p-Isopropyltoluene		**98.26**	79.8	137.5
1,3-Dichlorobenzene		**95.16**	77.0	131.3
1,4-Dichlorobenzene		**95.36**	20.7	137.7
1,2-Dichlorobenzene		**95.82**	10.0	166.2
1,2,3-Trimethylbenzene		**98.00**	76.3	124.2
n-Butylbenzene		**100.30**	80.0	133.3
Hexachloroethane		**95.30**	23.8	138.1
1,2-Dibromo-3-Chloropropane		**92.66**	21.2	189.4
1,2,4-Trichlorobenzene		**97.68**	27.4	143.4
1,2,3-Trichlorobenzene		**94.58**	75.4	131.4
Naphthalene		**96.36**	32.9	135.8
2-Methylnaphthalene		**86.32**	25.5	165.5

Blank (BLK)

Lab Sample ID: 131125a7.blkw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 16:35, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Acrolein		**ND**	10	ug/l
Acrylonitrile		**ND**	1	ug/l
Benzene		**ND**	1	ug/l
Bromodichloromethane		**ND**	1	ug/l
Bromoform		**ND**	1	ug/l
Bromomethane		**ND**	1	ug/l
Carbon tetrachloride		**ND**	1	ug/l
Chlorobenzene		**ND**	1	ug/l
Chloroethane		**ND**	1	ug/l
2-Chloroethylvinyl ether		**ND**	1	ug/l
Chloroform		**ND**	1	ug/l
Chloromethane		**ND**	1	ug/l
Dibromochloromethane		**ND**	1	ug/l
1,1-Dichloroethane		**ND**	1	ug/l
1,2-Dichloroethane		**ND**	1	ug/l
1,1-Dichloroethene		**ND**	1	ug/l

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Blank (BLK) (continued)

Lab Sample ID: 131125a7.blkw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 16:35, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
trans-1,2-Dichloroethene		**ND**	1	ug/l
1,2-Dichloropropane		**ND**	1	ug/l
cis-1,3-Dichloropropene		**ND**	1	ug/l
trans-1,3-Dichloropropene		**ND**	1	ug/l
Ethylbenzene		**ND**	1	ug/l
Methylene chloride		**ND**	1	ug/l
1,1,2,2-Tetrachloroethane		**ND**	1	ug/l
Tetrachloroethene		**ND**	1	ug/l
Toluene		**ND**	1	ug/l
1,1,1-Trichloroethane		**ND**	1	ug/l
1,1,2-Trichloroethane		**ND**	1	ug/l
Trichloroethene		**ND**	1	ug/l
Vinyl chloride		**ND**	1	ug/l
1,2-Dichlorobenzene		**ND**	1	ug/l
1,3-Dichlorobenzene		**ND**	1	ug/l
1,4-Dichlorobenzene		**ND**	1	ug/l
Trichlorofluoromethane		**ND**	1	ug/l
p,m-Xylene		**ND**	1	ug/l
o-Xylene		**ND**	1	ug/l

Matrix Spike (MS)

Lab Sample ID: 131125a7.5904605m, Parent Sample ID: S59046.04

Run in Batch: 131125A7, Run Date: 11/25/2013 14:23, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,1,2-Trichloro-1,2,2-trifluoroethane		**90.38**	75.1	135.9
Diethyl ether		**83.98**	67.4	121.2
Acetone		**67.50**	29.9	161.5
Methyl iodide		**90.16**	68.8	116.4
Carbon disulfide		**88.68**	63.8	137.4
Methyl acetate		**101.32**	64.7	125.4
tert-Methyl butyl ether		**98.26**	73.2	122.4
Acrylonitrile		**99.52**	69.9	128.9
2-Butanone		**83.96**	44.0	134.4
Dichlorodifluoromethane		**105.16**	10.0	222.8
Chloromethane		**105.96**	23.8	166.5
Vinyl Chloride		**96.34**	43.5	149.1
Bromomethane		**100.06**	56.8	151.3
Chloroethane		**97.80**	53.4	149.4
Trichlorofluoromethane		**114.04**	59.7	151.8
1,1-Dichloroethene		**104.40**	69.6	139.4
Methylene Chloride		**93.18**	73.3	121.1
trans-1,2-Dichloroethene		**103.00**	73.6	129.3
1,1-Dichloroethane		**101.06**	71.5	126.2
cis-1,2-Dichloroethene		**96.38**	76.6	122.1
Tetrahydrofuran		**93.76**	59.0	117.9
Chloroform		**104.84**	78.4	124.0

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Matrix Spike (MS) (continued)

Lab Sample ID: 131125a7.5904605m, Parent Sample ID: S59046.04

Run in Batch: 131125A7, Run Date: 11/25/2013 14:23, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		**97.54**	78.2	120.8
1,1,1-Trichloroethane		**114.74**	79.4	130.9
Cyclohexane		**98.48**	10.0	169.1
4-Methyl-2-pentanone		**101.66**	71.6	125.2
2-Hexanone		**99.02**	55.4	136.9
Carbon Tetrachloride		**117.12**	72.6	133.0
Benzene		**93.60**	79.9	124.9
1,2-Dichloroethane		**109.34**	76.0	126.3
Trichloroethene		**98.56**	79.7	124.2
1,2-Dichloropropane		**96.42**	78.6	126.4
Bromodichloromethane		**104.86**	80.4	128.2
Methyl cyclohexane		**96.04**	76.6	131.3
Dibromomethane		**99.24**	76.9	122.1
cis-1,3-Dichloropropene		**96.22**	79.8	129.9
Toluene		**96.40**	79.8	124.5
trans-1,3-Dichloropropene		**100.86**	74.0	131.3
1,1,2-Trichloroethane		**97.36**	78.7	123.1
Tetrachloroethene		**98.76**	74.5	124.5
trans-1,4-Dichloro-2-butene		**103.44**	68.6	135.4
Dibromochloromethane		**104.38**	74.6	127.2
1,2-Dibromoethane		**102.82**	70.3	133.7
Chlorobenzene		**95.56**	79.2	122.7
1,1,1,2-Tetrachloroethane		**110.98**	80.3	128.2
Ethylbenzene		**100.70**	79.5	129.1
p,m-Xylene		**96.68**	79.4	132.2
o-Xylene		**101.96**	80.2	131.0
Styrene		**97.58**	69.5	126.7
Isopropylbenzene		**101.88**	74.4	121.5
Bromoform		**102.28**	69.4	128.0
1,1,2,2-Tetrachloroethane		**97.10**	79.8	126.3
1,2,3-Trichloropropane		**103.52**	78.3	138.8
n-Propylbenzene		**100.70**	82.0	130.7
Bromobenzene		**98.46**	78.7	124.6
1,3,5-Trimethylbenzene		**98.88**	81.3	128.9
tert-Butylbenzene		**109.94**	80.7	128.9
1,2,4-Trimethylbenzene		**98.78**	81.4	130.8
sec-Butylbenzene		**98.56**	77.4	129.8
p-Isopropyltoluene		**98.90**	79.8	137.5
1,3-Dichlorobenzene		**96.12**	77.0	131.3
1,4-Dichlorobenzene		**96.94**	20.7	137.7
1,2-Dichlorobenzene		**96.74**	10.0	166.2
1,2,3-Trimethylbenzene		**98.40**	76.3	124.2
n-Butylbenzene		**100.18**	80.0	133.3
Hexachloroethane		**97.98**	23.8	138.1
1,2-Dibromo-3-Chloropropane		**96.20**	21.2	189.4
1,2,4-Trichlorobenzene		**99.52**	27.4	143.4

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Matrix Spike (MS) (continued)

Lab Sample ID: 131125a7.5904605m, Parent Sample ID: S59046.04

Run in Batch: 131125A7, Run Date: 11/25/2013 14:23, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,2,3-Trichlorobenzene		**97.10**	75.4	131.4
Naphthalene		**100.84**	32.9	135.8
2-Methylnaphthalene		**92.48**	25.5	165.5

Matrix Spike Duplicate (MSD)

Lab Sample ID: 131125a7.5904606n, Parent Sample ID: 131125a7.5904605m

Run in Batch: 131125A7, Run Date: 11/25/2013 14:45, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,2-Trichloro-1,2,2-trifluoroethane		**94.22**	75.1	135.9	**4.2**	30.0
Diethyl ether		**94.56**	67.4	121.2	**11.9**	30.0
Acetone		**68.54**	29.9	161.5	**1.5**	30.0
Methyl iodide		**93.98**	68.8	116.4	**4.1**	30.0
Carbon disulfide		**91.74**	63.8	137.4	**3.4**	30.0
Methyl acetate		**104.86**	64.7	125.4	**3.4**	30.0
tert-Methyl butyl ether		**101.92**	73.2	122.4	**3.7**	30.0
Acrylonitrile		**105.10**	69.9	128.9	**5.5**	30.0
2-Butanone		**84.92**	44.0	134.4	**1.1**	30.0
Dichlorodifluoromethane		**105.88**	10.0	222.8	**0.7**	30.0
Chloromethane		**109.42**	23.8	166.5	**3.2**	30.0
Vinyl Chloride		**99.66**	43.5	149.1	**3.4**	30.0
Bromomethane		**104.04**	56.8	151.3	**3.9**	30.0
Chloroethane		**102.04**	53.4	149.4	**4.2**	30.0
Trichlorofluoromethane		**117.74**	59.7	151.8	**3.2**	30.0
1,1-Dichloroethene		**108.56**	69.6	139.4	**3.9**	30.0
Methylene Chloride		**96.68**	73.3	121.1	**3.7**	30.0
trans-1,2-Dichloroethene		**106.06**	73.6	129.3	**2.9**	30.0
1,1-Dichloroethane		**103.94**	71.5	126.2	**2.8**	30.0
cis-1,2-Dichloroethene		**99.48**	76.6	122.1	**3.2**	30.0
Tetrahydrofuran		**96.64**	59.0	117.9	**3.0**	30.0
Chloroform		**108.06**	78.4	124.0	**3.0**	30.0
Bromochloromethane		**101.02**	78.2	120.8	**3.5**	30.0
1,1,1-Trichloroethane		**118.06**	79.4	130.9	**2.9**	30.0
Cyclohexane		**100.56**	10.0	169.1	**2.1**	30.0
4-Methyl-2-pentanone		**104.48**	71.6	125.2	**2.7**	30.0
2-Hexanone		**99.78**	55.4	136.9	**0.8**	30.0
Carbon Tetrachloride		**120.48**	72.6	133.0	**2.8**	30.0
Benzene		**95.76**	79.9	124.9	**2.3**	30.0
1,2-Dichloroethane		**112.50**	76.0	126.3	**2.8**	30.0
Trichloroethene		**102.02**	79.7	124.2	**3.5**	30.0
1,2-Dichloropropane		**97.60**	78.6	126.4	**1.2**	30.0
Bromodichloromethane		**107.70**	80.4	128.2	**2.7**	30.0
Methyl cyclohexane		**98.08**	76.6	131.3	**2.1**	30.0
Dibromomethane		**101.48**	76.9	122.1	**2.2**	30.0
cis-1,3-Dichloropropene		**97.40**	79.8	129.9	**1.2**	30.0
Toluene		**96.42**	79.8	124.5	**0.0**	30.0
trans-1,3-Dichloropropene		**101.92**	74.0	131.3	**1.0**	30.0

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: 131125a7.5904606n, Parent Sample ID: 131125a7.5904605m

Run in Batch: 131125A7, Run Date: 11/25/2013 14:45, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,2-Trichloroethane		**97.46**	78.7	123.1	**0.1**	30.0
Tetrachloroethene		**96.90**	74.5	124.5	**1.9**	30.0
trans-1,4-Dichloro-2-butene		**103.56**	68.6	135.4	**0.1**	30.0
Dibromochloromethane		**105.16**	74.6	127.2	**0.7**	30.0
1,2-Dibromoethane		**102.32**	70.3	133.7	**0.5**	30.0
Chlorobenzene		**96.04**	79.2	122.7	**0.5**	30.0
1,1,1,2-Tetrachloroethane		**111.42**	80.3	128.2	**0.4**	30.0
Ethylbenzene		**101.06**	79.5	129.1	**0.4**	30.0
p,m-Xylene		**97.40**	79.4	132.2	**0.7**	30.0
o-Xylene		**102.12**	80.2	131.0	**0.2**	30.0
Styrene		**99.12**	69.5	126.7	**1.6**	30.0
Isopropylbenzene		**101.52**	74.4	121.5	**0.4**	30.0
Bromoform		**104.84**	69.4	128.0	**2.5**	30.0
1,1,2,2-Tetrachloroethane		**97.72**	79.8	126.3	**0.6**	30.0
1,2,3-Trichloropropane		**104.66**	78.3	138.8	**1.1**	30.0
n-Propylbenzene		**101.40**	82.0	130.7	**0.7**	30.0
Bromobenzene		**99.04**	78.7	124.6	**0.6**	30.0
1,3,5-Trimethylbenzene		**98.70**	81.3	128.9	**0.2**	30.0
tert-Butylbenzene		**108.72**	80.7	128.9	**1.1**	30.0
1,2,4-Trimethylbenzene		**98.06**	81.4	130.8	**0.7**	30.0
sec-Butylbenzene		**99.28**	77.4	129.8	**0.7**	30.0
p-Isopropyltoluene		**100.08**	79.8	137.5	**1.2**	30.0
1,3-Dichlorobenzene		**97.18**	77.0	131.3	**1.1**	30.0
1,4-Dichlorobenzene		**97.64**	20.7	137.7	**0.7**	30.0
1,2-Dichlorobenzene		**98.48**	10.0	166.2	**1.8**	30.0
1,2,3-Trimethylbenzene		**99.28**	76.3	124.2	**0.9**	30.0
n-Butylbenzene		**101.82**	80.0	133.3	**1.6**	30.0
Hexachloroethane		**100.22**	23.8	138.1	**2.3**	30.0
1,2-Dibromo-3-Chloropropane		**98.90**	21.2	189.4	**2.8**	30.0
1,2,4-Trichlorobenzene		**99.92**	27.4	143.4	**0.4**	30.0
1,2,3-Trichlorobenzene		**98.78**	75.4	131.4	**1.7**	30.0
Naphthalene		**103.70**	32.9	135.8	**2.8**	30.0
2-Methylnaphthalene		**94.36**	25.5	165.5	**2.0**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 131125a7.lcsw25b, Parent Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 14:02, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,2-Trichloro-1,2,2-trifluoroethane		**90.84**	75.1	135.9	**1.8**	30.0
Diethyl ether		**90.20**	67.4	121.2	**23.7**	30.0
Acetone		**110.42**	29.9	161.5	**2.2**	30.0
Methyl iodide		**91.60**	68.8	116.4	**3.1**	30.0
Carbon disulfide		**90.00**	63.8	137.4	**2.7**	30.0
Methyl acetate		**105.00**	64.7	125.4	**8.8**	30.0
tert-Methyl butyl ether		**100.18**	73.2	122.4	**5.2**	30.0
Acrylonitrile		**101.96**	69.9	128.9	**7.9**	30.0

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 131125a7.lcsw25b, Parent Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 14:02, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2-Butanone		**107.12**	44.0	134.4	**0.2**	30.0
Dichlorodifluoromethane		**103.10**	10.0	222.8	**0.5**	30.0
Chloromethane		**107.34**	23.8	166.5	**0.2**	30.0
Vinyl Chloride		**95.68**	43.5	149.1	**1.3**	30.0
Bromomethane		**97.92**	56.8	151.3	**1.6**	30.0
Chloroethane		**95.46**	53.4	149.4	**0.1**	30.0
Trichlorofluoromethane		**113.34**	59.7	151.8	**0.3**	30.0
1,1-Dichloroethene		**105.70**	69.6	139.4	**4.1**	30.0
Methylene Chloride		**94.70**	73.3	121.1	**2.7**	30.0
trans-1,2-Dichloroethene		**102.66**	73.6	129.3	**4.4**	30.0
1,1-Dichloroethane		**100.60**	71.5	126.2	**3.6**	30.0
cis-1,2-Dichloroethene		**96.44**	76.6	122.1	**3.3**	30.0
Tetrahydrofuran		**98.28**	59.0	117.9	**8.2**	30.0
Chloroform		**104.66**	78.4	124.0	**3.5**	30.0
Bromochloromethane		**99.40**	78.2	120.8	**4.1**	30.0
1,1,1-Trichloroethane		**114.26**	79.4	130.9	**1.7**	30.0
Cyclohexane		**100.08**	10.0	169.1	**1.2**	30.0
4-Methyl-2-pentanone		**99.06**	71.6	125.2	**7.6**	30.0
2-Hexanone		**111.20**	55.4	136.9	**0.9**	30.0
Carbon Tetrachloride		**117.52**	72.6	133.0	**2.4**	30.0
Benzene		**92.96**	79.9	124.9	**2.9**	30.0
1,2-Dichloroethane		**112.56**	76.0	126.3	**4.6**	30.0
Trichloroethene		**99.56**	79.7	124.2	**3.3**	30.0
1,2-Dichloropropane		**97.18**	78.6	126.4	**5.1**	30.0
Bromodichloromethane		**106.46**	80.4	128.2	**3.0**	30.0
Methyl cyclohexane		**95.58**	76.6	131.3	**1.4**	30.0
Dibromomethane		**99.92**	76.9	122.1	**4.0**	30.0
cis-1,3-Dichloropropene		**97.66**	79.8	129.9	**5.3**	30.0
Toluene		**95.80**	79.8	124.5	**4.5**	30.0
trans-1,3-Dichloropropene		**102.40**	74.0	131.3	**5.5**	30.0
1,1,2-Trichloroethane		**97.40**	78.7	123.1	**6.4**	30.0
Tetrachloroethene		**95.80**	74.5	124.5	**3.9**	30.0
trans-1,4-Dichloro-2-butene		**102.96**	68.6	135.4	**0.1**	30.0
Dibromochloromethane		**105.16**	74.6	127.2	**4.5**	30.0
1,2-Dibromoethane		**104.62**	70.3	133.7	**6.2**	30.0
Chlorobenzene		**95.64**	79.2	122.7	**3.5**	30.0
1,1,1,2-Tetrachloroethane		**109.72**	80.3	128.2	**3.0**	30.0
Ethylbenzene		**100.04**	79.5	129.1	**3.4**	30.0
p,m-Xylene		**95.57**	79.4	132.2	**3.0**	30.0
o-Xylene		**102.16**	80.2	131.0	**3.6**	30.0
Styrene		**97.96**	69.5	126.7	**3.8**	30.0
Isopropylbenzene		**100.06**	74.4	121.5	**2.3**	30.0
Bromoform		**104.18**	69.4	128.0	**6.5**	30.0
1,1,2,2-Tetrachloroethane		**98.32**	79.8	126.3	**7.8**	30.0
1,2,3-Trichloropropane		**105.08**	78.3	138.8	**9.4**	30.0
n-Propylbenzene		**99.66**	82.0	130.7	**3.7**	30.0

Organics - Volatiles, Prep Batch ID: VF131125W1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 131125a7.lcsw25b, Parent Sample ID: 131125a7.lcsw25a

Run in Batch: 131125A7, Run Date: 11/25/2013 14:02, Prep Date: 11/25/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Bromobenzene		**100.10**	78.7	124.6	**4.5**	30.0
1,3,5-Trimethylbenzene		**97.40**	81.3	128.9	**1.1**	30.0
tert-Butylbenzene		**107.20**	80.7	128.9	**1.9**	30.0
1,2,4-Trimethylbenzene		**97.42**	81.4	130.8	**3.3**	30.0
sec-Butylbenzene		**99.66**	77.4	129.8	**2.5**	30.0
p-Isopropyltoluene		**100.92**	79.8	137.5	**2.7**	30.0
1,3-Dichlorobenzene		**98.08**	77.0	131.3	**3.0**	30.0
1,4-Dichlorobenzene		**98.80**	20.7	137.7	**3.5**	30.0
1,2-Dichlorobenzene		**99.52**	10.0	166.2	**3.8**	30.0
1,2,3-Trimethylbenzene		**101.06**	76.3	124.2	**3.1**	30.0
n-Butylbenzene		**101.60**	80.0	133.3	**1.3**	30.0
Hexachloroethane		**99.28**	23.8	138.1	**4.1**	30.0
1,2-Dibromo-3-Chloropropane		**98.96**	21.2	189.4	**6.6**	30.0
1,2,4-Trichlorobenzene		**100.92**	27.4	143.4	**3.3**	30.0
1,2,3-Trichlorobenzene		**99.10**	75.4	131.4	**4.7**	30.0
Naphthalene		**102.82**	32.9	135.8	**6.5**	30.0
2-Methylnaphthalene		**91.94**	25.5	165.5	**6.3**	30.0

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC112013.2

Send Results To:

Contact & Company Name: Trevor Swarthout, Andrea Krevinghaus, Tony Maffeo	Telephone: 810.225.1900
Address: 10559 Citation Drive, Suite 100	Fax:
City State Zip: Brighton, MI 48116	Email: See comments
Project Name/Location (City, State): Buick City Site # 1295 Task 1500	Project #: B0064410.2013.01500
Sampler's Printed Name: Trevor Swarthout	Sampler's Signature: [signature]

Preservative	B	C	E	E	E	A	D	A
# of Containers	1	1	1	2	2	1	1	3
Container Information	3	4	5	2	2	9	3	1

KEYS

Preservative	Container	Matrix
A. HCL	1. 40mL VOA	W = Water
B. HNO_3	2. 1L Amber	A = Air
C. H_2SO_4	3. 125 mL Plastic	5 = Soil
D. NaOH	4. 250 mL Plastic	SE = Sediment
E. None	5. 32oz Plastic	SL = Solids
F. Hexane	6. 1 L Plastic	NL = NAPL / Oil
	7. 2 oz Glass	SW = Surface Wipe
	8. 4 oz Glass	T = Tissue
	9. 32oz Glass	

PARAMETER ANALYSIS & METHOD

	Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	200.8 Total Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc	4500 Ammonia & phosphorus	10360 BOD & 2540 Total Suspended Solids	625 SVOCs TTO	608 PCBs	1664 HEM Oil & Grease	4500-CN Amenable Cyanide	624 VOCs TTO + Xylenes	REMARKS
59095 .01	AOI-09B-GAC-EFF-COMPOSIT (112013)	112013	1300	X		W	X	X	X	X	X				24 hr Composite
.02	AOI-09B-GAC-EFF-GRAB01 (112013)	112013	950		X	W						X	X	X	
.03	AOI-09B-GAC-EFF-GRAB02 (112013)	112013	1000		X	W						X	X	X	
.04	AOI-09B-GAC-EFF-GRAB03 (112013)	112013	1010		X	W						X	X	X	
.05	AOI-09B-GAC-EFF-GRAB04 (112013)	112013	1020		X	W						X	X	X	

Special Instructions/Comments: P.O.No: 126110 - Please email invoices to Christi Kiker (ARCADIS).
email addresses:christi.kiker@arcadis-us.com; deborah.newcom@arcadis-us.com;
trevor.swarthout@arcadis-us.com; andrea.krevinghaus@arcadis-us.com
Direct bill to ARCADIS **WA007** **Please cc Erin Kozak on sample receipt**

Special QA/QC Instructions (✓): Level II, EDD

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit Laboratories - East Lansing, MI	Cooler Custody Seal	Printed Name: Trevor Swarthout	Printed Name: Chris Gauthier	Printed Name: Kevin George
☑ Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature: [signature]	Signature: [signature]	Signature: Kevin George
Specify Turnaround Requirements: Standard 2 week	Sample Receipt:	Firm: ARCADIS	Firm: Merit Laboratories	Firm: Merit
Fed-Ex Tracking #: N/A	Condition/Cooler Temp:	Date/Time: 11.20.13 1430	Date/Time: 11.20.13 1430	Date/Time: 11/20/13 1550

ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248.994.2240
Fax 248.994.2241
www.arcadis-us.com

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road.
Flint, Michigan 48532

Subject:
December 2013 Monthly Discharge Report for Revitalizing Auto Communities Environmental Response Trust, Use Permit No. 2-02-RBC001, 1200 East Hamilton Ave., Flint, Michigan.

ENVIRONMENT

Date:
January 24, 2014

Contact:
Edward L. Cote, PE

Phone:
248.994.2295

Email:
Edward. Cote@arcadis-us.com

Our ref:
B0644410.2013.01500

Dear Mr. Robert J. Case:

This letter report is submitted by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) and summarizes groundwater remediation system operation, monitoring, and maintenance (OM&M) activities conducted during December 2013 at the RACER Buick City AOI-9B Groundwater Remediation System located at 1200 East Hamilton Avenue in Flint, Michigan.

Groundwater Treatment System Operation and Monitoring

To prevent damage to system components during the winter months, the treatment system remained off during the month of December 2013. 0 cubic feet of wastewater was discharged to Outfall 001 of the RACER Buick City AOI-9B Groundwater Remediation System (see Table 1). The daily discharge flow rates on average were 0 cubic feet (0 gallons per day) at an average 0 gallons per minute. Daily discharge flow rates did not exceed 36,000 gallons per day or 25 gallons per minute.

The system will remain down during the months of January, February and most of March. Start up will depend on weather trends and forecasted conditions. A letter notifying the City of Flint of system startup will be provided prior to start up.

Groundwater Treatment System Monitoring Results

No analytical results were collected during the month of December 2013 (see Table 2).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware

that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

ARCADIS G&M of Michigan, LLC



Edward L. Cote, PE
Principal Engineer

Copies:
Grant Trigger, RACER Trust Cleanup Manager – Michigan

ARCADIS

Tables

Table 1. Effluent Discharge Flow Meter Readings, RACER Buick City AOI-9B Groundwater Remediation System, Flint, Michigan.

Discharger Period	City of Flint Flow Meter Totalizer Reading (Cubic Feet)	City of Flint Flow Meter Total Cubic Feet Discharged for the Month
April 9, 2013 - April 30, 2013	99,999.90 - 7,310.90	7,310.90
May 1, 2013 - May 23, 2013	7,310.90 - 21,060.20	13,749.30
May 23, 2013 - June 28, 2013	21,060.20 - 37,150.30	16,090.10
June 28, 2013 - July 31, 2013	37,150.30 - 48,831.28	11,680.98
August 1, 2013- August 31, 2013	48,831.28 - 64,419.10	15,587.82
Septmeber 1 - September 30, 2013	64,419.10 - 75,870.75	11,451.65
October 1 - October 31, 2013	75,870.75 - 84,865.93	8,995.18
November 1 - November 26, 2013	84,865.93 - 93,464.21	8,598.28
November 27 - Decembe 31, 2013	93,464.21 - 93,464.21	0

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Ammonia-N	QL *	BOD	QL *	TP	QL *	TSS	QL *	As, T	QL *	Cd, T	QL *	Cr, T	QL *	Cu, T	QL *	Pb, T	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	37		427		7		305		0.041		0.014		0.048		0.179		0.322	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	NA	0.02	NA	1	NA	0.01	NA	1	NA	0.002	NA	0.0005	NA	0.005	NA	0.004	NA	0.003
Test Method	4500-NH3 D		10360		4500-PE		2540 D		E200.8		E200.8		E200.8		E200.8		E200.8	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite		Composite	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled		Not Sampled	
Test Method	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	NA		NA		NA		NA		NA		NA		NA		NA		NA	
No. of Samples	0		0		0		0		0		0		0		0		0	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Hg, T	QL *	Ni, T	QL *	Ag, T	QL *	Zn, T	QL *	pH	QL *	HEM	QL *	Cyanide, A	QL *	Benzene	QL *	Ethybenzene	QL *
Units	mg/L		mg/L		mg/L		mg/L		SU		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.000012*		0.043		0.023		0.445		6.0-10.5		100		0.005		0.001		0.001	
Maximum Limit	N/A		N/A		N/A		N/A				N/A		1.195		0.174		2.048	
Minimum Limit	N/A		N/A		N/A		N/A				N/A		N/A		N/A		N/A	
Test Result	NA	0.0002	NA	0.005	NA	0.0005	NA	0.005	NA		NA	1	NA	0.005	NA	0.001	NA	0.001
Test Method	E245.1		E200.8		E200.8		E200.8		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	Composite		Composite		Composite		Composite		Grab01		Grab01		Grab01		Grab01		Grab01	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.9		1	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	NA		NA		NA		NA		Grab02		Grab02		Grab02		Grab02		Grab02	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.8		4	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	NA		NA		NA		NA		Grab03		Grab03		Grab03		Grab03		Grab03	
Test Result	Not Sampled		Not Sampled		Not Sampled		Not Sampled		7.8		1	1	<	0.005	<	0.001	<	0.001
Test Method	NA		NA		NA		NA		4500HB		1664A		335.4/4500-CN-G		E624		E624	
Test Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA		NA		NA		NA		NA	
Sample Type	NA		NA		NA		NA		Grab04		Grab04		Grab04		Grab04		Grab04	
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Test Result																		
Test Method																		
Test Date																		
Sample Date																		
Sample Type																		
Average Daliy Conc.	NA		NA		NA		NA		NA		NA		NA		NA		NA	
No. of Samples	0		0		0		0		0		0		0		0		0	
Number of Limit Exceedances	0		0		0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

Table 2: City of Flint Sewer User Self-Monitoring Report
RACER Buick City AOI-9B Groundwater Remediation System
Permit Number 2-02-RBC001

Analytical Parameter	Toluene	QL *	Xylenes, Total	QL *	Toxic Organics Volatile	QL *	Toxic Organics Semi-Volatile	QL *	PCB	QL *
Units	mg/L		mg/L		mg/L		mg/L		mg/L	
Sample Frequency	Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month		Sample on one (1) day per month	
Daily Maximum Limit	0.187		0.002		N/A		N/A		0.00000020*	
Maximum Limit	1.753		2.009		N/A		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		N/A		N/A	
Test Result	NA	0.001	NA	0.003	NA	Varies	NA	0.01	NA	0.0001
Test Method	E624		E624		E624		E625M		E608	
Test Date	NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA	
Sample Type	Grab01		Grab01		Grab01		Composite		Composite	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA	
Sample Type	Grab02		Grab02		Grab02		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA	
Sample Type	Grab03		Grab03		Grab03		NA		NA	
Test Result	<	0.001	<	0.003	<	Varies	Not Sampled		Not Sampled	
Test Method	E624		E624		E624		NA		NA	
Test Date	NA		NA		NA		NA		NA	
Sample Date	NA		NA		NA		NA		NA	
Sample Type	Grab04		Grab04		Grab04		NA		NA	
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Test Result										
Test Method										
Test Date										
Sample Date										
Sample Type										
Average Daliy Conc.	NA		NA		NA		NA		NA	
No. of Samples	0		0		0		0		0	
Number of Limit Exceedances	0		0		0		0		0	

Notes: * Quantification Level: The lowest at which the test result is reported by the analytical laboatory as a quanitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

ARCADIS

Air Permit

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

DAN WYANT
DIRECTOR

April 11, 2012

Mr. Grant Trigger
Revitalizing Auto Communities Environmental Response Trust
2930 Ecorse Road
Ypsilanti, Michigan 48198

RECEIVED APR 13 2012

Dear Mr. Trigger:

This letter is in reference to your Permit to Install application for a multi-phase extraction (MPE) remidation system (State Registration Number A1178) located at 902 East Hamilton Avenue, Flint, Michigan. This application, identified as No. 165-11, has been evaluated and approved by the Air Quality Division (AQD), pursuant to the delegation of authority from the Michigan Department of Environmental Quality (DEQ).

This approval is based upon and subject to compliance with all administrative rules promulgated pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), and conditions stipulated in the attached supplement. Please review these conditions thoroughly so that you may take the actions necessary to ensure compliance with all of these conditions.

To help us improve the service we provide our customers, we encourage you to complete a *Permit to Install Customer Service Survey* on the following Web page:

http://www.michigan.gov/documents/deq/DEQEval_29-pti-customerservice_287285_7.html

Please contact me if you have any questions regarding this permit.

Sincerely,

D. John Vial
Thermal Process Unit
Permit Section, Air Quality Division
517-241-7468
Vialj@michigan.gov

Attachment
cc/att: Mr Thomas Hess, DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

March 9, 2012

PERMIT TO INSTALL
165-11

ISSUED TO
Revitalizing Auto Communities Environmental Response Trust

LOCATED AT
902 East Hamilton Avenue
Flint, Michigan

IN THE COUNTY OF
Genesee

STATE REGISTRATION NUMBER
A1178

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **November 15, 2012**	
DATE PERMIT TO INSTALL APPROVED: **March 9, 2012**	SIGNATURE: MaryAnn Dolehanty
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section **Page**

Alphabetical Listing of Common Abbreviations / Acronyms 2
General Conditions 3
Special Conditions 5
Emission Unit Summary Table 5
Flexible Group Summary Table 5
Special Conditions for FGREMED 6
Appendix A 9

Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
EPA	Environmental Protection Agency	gr	Grains
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallon of Applied Coating Solids	H_2S	Hydrogen Sulfide
GC	General Condition	hp	Horsepower
HAP	Hazardous Air Pollutant	lb	Pound
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	ng	Nanogram
MDEQ	Michigan Department of Environmental Quality (Department)	NO_x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	PM less than 10 microns diameter
NSPS	New Source Performance Standards	PM2.5	PM less than 2.5 microns diameter
NSR	New Source Review	pph	Pound per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonably Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO_2	Sulfur Dioxide
SRN	State Registration Number	THC	Total Hydrocarbons
TAC	Toxic Air Contaminant	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUSOIL	Multi-phase extraction system, vacuum blower(s), and an air flow distribution system equipped with thermal oxidizer and catalytic oxidizer controls.[1]		FGREMED
EUGROUNDWATER	Air stripping tower(s), pump(s), and a groundwater flow distribution system equipped with thermal oxidizer and catalytic oxidizer controls). [1]		FGREMED
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

Notes:
[1] The system will initially be controlled by a thermal oxidizer. The thermal oxidizer may be replaced with a catalytic oxidizer once the concentration at the inlet to the air pollution control system is less than 2,000 ppmv as allowed under Special Condition FGREMED Section III.1 and 2.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGREMED	Multi-phase extraction (MPE) system for the remediation of contaminated soil and groundwater. Air pollution control consists of two separate control systems. A "thermal oxidizer" will be used for the high concentration scenario and a catalytic oxidizer will be used during the low concentration scenario.	EUSOIL and EUGROUNDWATER

The following conditions apply to: FGREMED

DESCRIPTION: Multi-phase extraction (MPE) system for the remediation of contaminated soil and groundwater. Air pollution control consists of two separate control systems. A thermal oxidizer will be used for the high concentration scenario and a catalytic oxidizer will be used during the low concentration scenario

Emission Units: EUSOIL and EUGROUNDWATER

POLLUTION CONTROL EQUIPMENT: Thermal oxidizer or catalytic oxidizer

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	14.3 tpy	12-month rolling time period as determined at the end of each calendar month.	FGREMED	SC VI.2	R 336.1702(a)
2. VOC	3.27 pph	According to monitoring/testing method	FGREMED	SC VI.2	R 336.1225, R 336.1702
3. Each Individual HAP	Less than 8.9 tpy*	12-month rolling time period as determined at the end of each calendar month.	FGREMED	SC VI.2	R 336.1205(3)
4. Aggregate HAPs	Less than 22.4 tpy *	12-month rolling time period as determined at the end of each calendar month.	FGREMED	SC VI.2	R 336.1205(3)
* Beginning on Permit Issuance Date, and continuing for the first 12 calendar months, this limit applies to the cumulative total HAP emissions. Thereafter, the limit shall become a 12-month rolling limit.					

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Based on initial pilot sampling and/or the most recent vapor stream sampling results, the permittee may begin the remediation project (FGREMEDIATION) using either the catalytic oxidizer or the thermal oxidizer. The permittee shall not operate FGREMEDIATION when the VOC concentration at the inlet to the air pollution control system is greater than 2,000 parts per million by volume (ppmv) unless the thermal oxidizer is operating in a satisfactory manner. The permittee shall not operate FGREMEDIATION when the VOC concentration at the inlet to the air pollution control system is less than 2,000 ppmv unless at least either the thermal oxidizer is operating in a satisfactory manner or the catalytic oxidizer is operating in a satisfactory manner. **(R 336.1225, R 336.1702(a), R 336.1910, R 336.1910)**

2. If the remediation system is being controlled by the thermal oxidizer, then the permittee may request that the AQD District Supervisor approve use of the catalytic oxidizers control system upon demonstrating that the

VOC inlet concentration to the control device has stabilized at a value below 2,000 ppmv. The request shall be in writing and the demonstration submittal shall contain data adequate to verify a stabilized inlet concentration below 2,000 ppmv. Following approval of the catalytic oxidizers control system, any VOC concentration monitored at the control system inlet that is greater than 2,000 ppmv shall require an immediate return to the "thermal oxidizer" control device until the permittee go through the process of demonstrating that VOC concentrations have stabilized below 2,000 ppmv and receives permission from the AQD District Supervisor to switch to the catalytic oxidizer. **(R 336.1225, R 336.1702, R 336.1910, R 336.1910)**

3. The permittee shall not operate EUSOIL of FGREMED unless a minimum temperature of 650°F at the inlet of the catalytic oxidizer is maintained. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

4. The permittee shall not operate EUSOIL of FGREMED unless a minimum temperature of 1400°F at the inlet of the thermal oxidizer is maintained. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a temperature monitoring device to monitor and record the inlet and outlet temperatures of the catalytic oxidizer catalyst bed/thermal oxidizer on a continuous basis. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

N/A

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period calculations of VOC, individual HAP, aggregate and HAP emission rates for FGREMED, as required by SC I.1 through SC I.4. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1901)**

3. The permittee shall monitor and record, in a satisfactory manner, the flow rate and the total VOC concentration of the vapor stream(s) into either the thermal oxidizer or into the catalytic oxidizer. This shall be done on a weekly basis until four valid samples, which pass all quality assurance and quality control requirements, have been obtained. Thereafter, the permittee shall monitor the vapor stream(s) into either the thermal oxidizer or into the catalytic oxidizer for these parameters on a monthly basis. The permittee shall submit any request for a change in the sampling frequency to the AQD District Supervisor for review and approval. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

4. The permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion chamber of the thermal oxidizer, on a continuous basis, when it is used as the air pollution control device. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

5. The permittee shall continuously monitor and record, in a satisfactory manner, the inlet and outlet temperature of the catalytic oxidizer catalyst bed when the catalytic oxidizer is used as the air pollution

control device(s). Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

VII. REPORTING

1. The permittee shall submit the following to the AQD District Supervisor using Appendix A. or an approved equivalent method:
   a) flow rate
   b) total VOC concentration
   c) VOC concentration of the influent stream(s) to FGREMED
   d) calculations of VOC emission rates.

   The information shall be submitted within 30 days following collection of the initial data, and thereafter within 15 days following the end of the month in which the data were collected. The permittee must submit any request for a change in the reporting frequency to the AQD District Supervisor for review and approval. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVREMED	14	15	R 336.1225, R 336.1901

IX. OTHER REQUIREMENTS

N/A

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A
Remediation Emission Calculation and Recordkeeping

Source Name		Contact Person	
Location		County	
Recordkeeping Period		Permit Number	Pollutant(s)
Start Date	End Date		

	V1	C1	V2	C2	E_S	P_S
Date	Sample Point 1: Air Volume Flow Rate(ft^3/min)	Sample Point 1: Inlet Concentration (mg/m^3)[1]	Sample Point 2: Air Volume Flow Rate (ft^3/min)	Sample Point 2: Inlet Concentration (mg/m^3)[1]	Control Efficiency (Percent)	VOC Emissions (lbs/hr)[2]
EXAMPLE	1,000	10,000			95	1.9

[1] Parts per million (ppm) in air is by volume and does not equal milligrams per liter (mg/ℓ).
[2] Identify which pollutant the emissions are being calculated for.

EQUATION TO CALCULATE EMISSIONS:

$$P_s \frac{lbs}{hr} = \left[\left(V1 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C1 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) + \left(V2 \frac{ft^3}{min} \times 0.02832 \frac{m^3}{ft^3} \times 60 \frac{min}{hr} \times C2 \frac{mg}{m^3} \times 0.001 \frac{g}{mg} \times 0.002205 \frac{lbs}{g} \right) \right] \times \frac{(100 - E_s)}{100}$$

Signature: _____ **Date:** _____

Telephone No.: _____

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR QUALITY DIVISION

PERMIT TO INSTALL APPLICATION

For authority to install, construct, reconstruct, relocate, or modify process, fuel-burning or refuse burning equipment and/or control equipment. Permits to install are required by administrative rules pursuant to Section 5505 of 1994 PA 451, as amended.

FOR DEQ USE ONLY
APPLICATION NUMBER
165-11

Please type or print clearly. The "Application Instructions" and "Information Required for an Administratively Complete Permit to Install Application" are available on the Air Quality Division (AQD) Permit Web Page at http://www.deq.state.mi.us/aps. Please call the AQD at 517-373-7023 if you have not been contacted within 15 days of your application submittal.

RECEIVED
OCT 27 2011
AIR QUALITY DIV.

1. FACILITY CODES: State Registration Number (SRN) and North American Industry Classification System (NAICS)
   SRN: A1178 NAICS: 525920

2. APPLICANT NAME: (Business License Name of Corporation, Partnership, Individual Owner, Government Agency)
   Revitalizing Auto Communities Environmental Response Trust

3. APPLICANT ADDRESS: (Number and Street)
   2930 Ecorse Road
   MAIL CODE:

   CITY: (City, Village or Township): Ypsilanti
   STATE: MI
   ZIP CODE: 48198
   COUNTY: Washtenaw

4. EQUIPMENT OR PROCESS LOCATION: (Number and Street – if different than Item 3)
   902 East Hamilton Avenue

   CITY: (City, Village or Township): Flint
   ZIP CODE: 48550
   COUNTY: Genessee

5. GENERAL NATURE OF BUSINESS:
   Former Automotive Manufacturing Facility

6. EQUIPMENT OR PROCESS DESCRIPTION: (A Description MUST Be Provided Here. Include Emission Unit IDs. Attach additional sheets if necessary; number and date each page of the submittal.)
   Multi-phase extraction (MPE) remediation system controlled by an oxidizer. The emission unit ID is EU-MPE. Additional unit descriptions are attached.

7. REASON FOR APPLICATION: (Check all that apply.)
   - [x] INSTALLATION / CONSTRUCTION OF NEW EQUIPMENT OR PROCESS
   - [ ] RECONSTRUCTION / MODIFICATION / RELOCATION OF EXISTING EQUIPMENT OR PROCESS – DATE INSTALLED:
   - [ ] OTHER – DESCRIBE

8. IF THE EQUIPMENT OR PROCESS THAT WILL BE COVERED BY THIS PERMIT TO INSTALL (PTI) IS CURRENTLY COVERED BY ANY ACTIVE PERMITS, LIST THE PTI NUMBER(S): N/A

9. DOES THIS FACILITY HAVE AN EXISTING RENEWABLE OPERATING PERMIT (ROP)? [x] NOT APPLICABLE [ ] PENDING APPLICATION [ ] YES
   PENDING APPLICATION OR ROP NUMBER:

10. AUTHORIZED EMPLOYEE: Grant Trigger
    TITLE: Cleanup Manager - MI
    PHONE NUMBER: (Include Area Code) 313-486-2908
    SIGNATURE: Grant R Trigger
    DATE: 10/20/2011
    E-MAIL ADDRESS: gtrigger@racertrust.org

11. CONTACT: (If different than Authorized Employee. The person to contact with questions regarding this application) Liz Carson
    PHONE NUMBER: (Include Area Code) 248-994-2270
    CONTACT AFFILIATION: ARCADIS
    E-MAIL ADDRESS: Liz.Carson@arcadis-us.com

12. IS THE CONTACT PERSON AUTHORIZED TO NEGOTIATE THE TERMS AND CONDITIONS OF THE PERMIT TO INSTALL? [x] YES [ ] NO

FOR DEQ USE ONLY - DO NOT WRITE BELOW

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: 11/15/11

DATE PERMIT TO INSTALL APPROVED: 3/9/12
SIGNATURE: Maryann Dobrosky

DATE APPLICATION / PTI VOIDED:
SIGNATURE:

DATE APPLICATION DENIED:
SIGNATURE:

A PERMIT CERTIFICATE WILL BE ISSUED UPON APPROVAL OF A PERMIT TO INSTALL

POTW Permit

CITY OF FLINT
DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION CONTROL DIVISION

Dayne Walling
Mayor

Robert J. Case
WPC Supervisor

July 20, 2012

Tony Maffeo
Construction Supervisor
ARCADIS U.S., Inc.
28550 Cabot Drive, Suite 500
Novi, Mi, 48377

Dear: Mr. Maffeo,

RE: Revised Sewer Use Permit # 2-02-RBC001

Enclosed, is sanitary sewer use permit number 2-02-RBC0011for Racer Trust, Buick City AOI-9 Groundwater Remediation System, which was in response to the Permit Application, dated November 7, 2011, submitted to the City of Flint by ARCADIS. The effective date of this permit is August 9,2012 and the expiration date is August 8, 2017.

If you have any question or need additional information, please call me, or call Tom Hutchings if I am unavailable, at (810) 766-7210.

Sincerely,

Robert J. Case
Water Pollution Control Supervisor

Enclosure

XC: Tom Hutchings, Senior Environmental Compliance Inspector

USPS # 7010 1670 0001 5104 8735

CITY OF FLINT, MICHIGAN

SEWER USE PERMIT

Class 2 - Significant Non-domestic User

Permit Number 2-02-RBC001

In accordance with certain provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1241 et seq; the "Act"), the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, as amended; the "State Act"), and the laws regulating use of the publicly owned treatment works (POTW) for sanitary sewage (hereafter POTW Regulations) set forth in Chapter 46, Article V, Division 2 of the Municipal Code (the "Code") of the City of Flint (the "City"), as identified below, the named permittee is hereby authorized to discharge wastewater from a certain parcel into the POTW at a specific location:

Permittee	Racer Trust- Racer Buick City AOI-9 Groundwater Remediation System
Address	1200 East Hamilton Ave.
Parcel No.	41-063-790-009
POTW Pipe No.	I09-40-06-W20

Said authorization is subject to the prohibitions, limits, requirements and conditions stipulated herein. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment laws, regulations, standards or requirements under City, State, and Federal laws; this includes any and all such laws, regulations, standards, or requirements that may become effective during the term of this permit and which shall apply to the permittee subsequent to modification of this permit and a reasonable period to achieve compliance. This does not include laws, regulations, standards or requirements that are subject to other chapters of the Code, such as chapters pertaining to the regulation of plumbing and electrical work.

The permittee shall comply with all of the provisions of this permit. A violation of any provision of this permit is a violation of the POTW Regulations, subject to the penalty, damage, compensatory charge, and other enforcement provisions of the POTW Regulations.

This permit shall become effective on ***August 9, 2012*** and shall expire at midnight on ***August 8, 2017***.

If the permittee wishes to continue to discharge after the expiration date of this permit, a written application in accordance with the requirements of the POTW Regulations must be submitted to the City a minimum of one hundred and eighty (180) days prior to the expiration date. Approval or denial of the application for discharge will be in accordance with POTW Regulations.

This permit is based on the information provided in the permittee's application, dated November 09, 2011 and acquired by recent inspections by the City of the permittee's facility. The City shall establish appropriate fees for reimbursement of costs to administer this permit and the associated Industrial Pretreatment Program.

Signed this 20th day of July 2012 by the City of Flint.

Robert J. Case, Water Pollution Control Supervisor
Department of Utilities Water Pollution Control Division

PART I

A. DISCHARGE PROHIBITIONS AND MONITORING REQUIREMENTS

1. Applicability of the POTW Regulations

In addition to the user-specific pollutant limits stipulated in this part, the permittee shall abide by the generally applicable discharge prohibitions and limits set forth in the POTW Regulations (excerpted in the Appendix), except if superceded by this permit or an order of the City Director.

a. The permittee is prohibited from discharging, causing to be discharged, or allowing to be discharged Potentially Harmful Substances or wastewater in amounts that may or do cause problems with the operation and maintenance of the City of Flint publicly owned treatment works (POTW) for sanitary sewage, including, but not limited to: interference with sewage treatment or sludge disposal, pass-through of pollutants, fire or explosion, corrosive structural damage, blockages to the flow of sewage, or unsafe conditions for workers.

b. The permittee is prohibited from increasing the use of potable water or process wastewater in any way for the purpose of diluting a discharge as a partial or complete substitute for adequate treatment before discharge to the POTW to achieve compliance with this part, which includes, by reference, the prohibitions and limitations set forth in the POTW Regulations, except upon prior written approval from the City Director, which approval shall be granted at the sole discretion of the City Director and consistent with State and Federal law.

c. The permittee is prohibited from discharging any wastes or wastewater into the POTW from a vehicle which transported the waste or wastewater to the point of discharge. The preceding sentence does not prohibit the permittee from trucking wastes or wastewater to the permittee's wastewater treatment facility.

2. Applicability of Other Laws

The permittee's discharge shall comply with any and all other applicable City, State, and Federal pretreatment laws, regulations, standards, and requirements. This includes any and all such laws, regulations, standards, or requirements that may become effective during the term of this permit and which shall apply to the permittee subsequent to modification of this permit and a reasonable period to achieve compliance.

a. The permittee shall comply with all Categorical Pretreatment Standards and any other pretreatment requirements established under 307(b), 307(c), or 402(b)(8) of the Act that are applicable to the permittee, as adjusted under the combined wastestream formula in Michigan Rule R 323.2311(7). If a Categorical Pretreatment Standard and another limit contained in this permit or the POTW Regulations or in an applicable State of Michigan pretreatment requirement regulate the same pollutant, then the more restrictive of them shall apply. If the permittee requests that a removal credit be made applicable to itself, then the permittee shall pay all costs associated with supporting, obtaining, and administering the removal credit so that the City incurs no costs. It shall be at the sole discretion of the City whether or not a removal credit shall be established and how a removal credit shall be allocated.

b. If a Categorical Pretreatment Standard is promulgated for a subcategory under which the permittee believes itself to be included, the permittee or the City Director may request from the MDEQ within sixty (60) days after the promulgation date a written determination of whether the permittee does or does not fall within that particular subcategory. Such request shall be made and reviewed in accordance with the procedures set forth in Michigan Rule R 323.2311, as amended. If the permittee adds or changes a process or operation that may be included in a subcategory, the permittee shall request the certification before commencing to

discharge from the added or changed process or operation. If the permittee will become a new source, it shall request the determination before commencing to discharge. If the City requests the determination, then the City shall notify the permittee of the submission and the permittee may provide written comments to the MDEQ within thirty (30) days after notification is sent. The permittee shall achieve compliance with such standard in accordance with and within the time period provided for in Michigan Rule R 323.2311, as amended.

3. Specific Discharge Limits and Monitoring Requirements

The discharge(s) to the POTW via the following outfall(s) shall comply with the following pollutant and/or flow limit(s), and the composition, characteristics and/or flow of the discharge(s) shall be monitored, as follows:

Outfall 001				
Parameter	Monitoring Frequency	Sampling Procedure	Pollutant Discharge Limits	
			Limit	Type
Ammonia-nitrogen	Sample on one (1) day per month.	Collect a 24-hour, flow proportioned composite sample.	37 mg/L	Daily Maximum
BOD	Monthly, as above.	Collect composite sample as above.	427 mg/L	Daily Maximum
Total Phosphorus	Monthly, as above.	Collect composite sample as above.	7 mg/L	Daily Maximum
Total Suspended Solids	Monthly, as above.	Collect composite sample as above.	305 mg/L	Daily Maximum
Total Arsenic	Monthly, as above.	Collect composite sample as above.	0.041 mg/L	Daily Maximum
Total Cadmium	Monthly, as above.	Collect composite sample as above.	0.014 mg/L	Daily Maximum
Total Chromium	Monthly, as above.	Collect composite sample as above.	0.048 mg/L	Daily Maximum
Total Copper	Monthly, as above.	Collect composite sample as above.	0.179 mg/L	Daily Maximum
Total Lead	Monthly, as above.	Collect composite sample as above.	0.322 mg/L	Daily Maximum
Total Mercury	Monthly, as above.	Collect composite sample as above.	0.000012* mg/L	Daily Maximum
Total Nickel	Monthly, as above.	Collect composite sample as above.	0.043 mg/L	Daily Maximum
Total Silver	Monthly, as above.	Collect composite sample as above.	0.023 mg/L	Daily Maximum
Total Zinc	Monthly, as above.	Collect composite sample as above.	0.445 mg/L	Daily Maximum
Hexane-extractable Material	Monthly, as above.	Collect four (4) grab samples, not less than ten (10) minutes apart.	100 mg/L	Daily Maximum
pH @ 25°C	Monthly, as above.	Collect grab samples as above.	10.5 SU	Maximum
			6.0 SU	Minimum
Amenable Cyanide	Monthly, as above.	Collect grab samples as above.	1.195 mg/L	Maximum
			0.005 mg/L	Daily Maximum
Benzene	Monthly, as above.	Collect grab samples as above.	0.174 mg/L	Maximum
			0.001 mg/L	Daily Maximum
Ethyl benzene	Monthly, as above.	Collect grab samples as above.	2.048 mg/L	Maximum
			0.001 mg/L	Daily Maximum
Toluene	Monthly, as above.	Collect grab samples as above.	1.753 mg/L	Maximum
			0.187 mg/L	Daily Maximum
Xylenes, Total	Monthly, as above.	Collect grab samples as above.	2.009 mg/L	Maximum
			0.002 mg/L	Daily Maximum

Outfall 001					
Parameter		Monitoring Frequency	Sampling Procedure	Pollutant Discharge Limits	
				Limit	Type
Toxic Organics	Volatile	Monthly, as above.	Collect grab samples as above.	Shall not violate POTW regulations (see Part I.A.1.a).	Not applicable
	Semi-Volatile	Monthly, as above.	Collect a 24-hour, flow proportioned composite sample.		
PCB		Monthly, as above.	Collect composite sample as above.	0.00000020* mg/L	Daily Maximum
Flow Volume		Continuously during discharge. – total Flow	Not applicable.	36,000 gal/day at a maximum rate of 25 gal/min.	Daily Maximum

* The pollutant shall be undetectable in the discharge, in compliance with the concentration limit in Table 46-146(c) in the appendix of the POTW Regulations.

4. Sampling Location

Samples of the discharge to outfall number 001 shall be collected from the sampling ports (for grab and composite samples) in the groundwater treatment system discharge pipe. The location of the groundwater treatment system and outfall are identified in the site map in the Appendix.

B. REPORTING AND NOTIFICATION REQUIREMENTS

1. Semi-annual Self-monitoring Report

In accordance with the POTW Regulations, the permittee shall submit a monthly Self-monitoring Report to the City by no later than twenty-eight (28) days following the end of the previous month in which monthly discharge monitoring was performed, in accordance with the following requirements:

- The report shall contain all monitoring data obtained by the permittee in accordance with the self-monitoring requirements stipulated in Part I.A.3.
- The report shall be submitted on the City's standard reporting form, which is included in the Appendix.
- The report shall be complete and include the measured discharge volume and the monitoring data for each parameter listed in Part I.A.3., including each individual target analyte for all multiple analyte tests.
- The report shall also clearly identify the analytical methods used, the date on which each analysis was performed, the date on which each sample was collected, and the sampling method used; and it shall also indicate the total number of samples collected and the total number of reported values that exceeded the limitations established in Part I.A.3 for each parameter specified thereunder.

In addition, the monthly Self-monitoring Report shall be accompanied by sample custody records and a quality assurance/quality control (QA/QC) report. The sample custody records shall include the following information:

- the exact place, date, and time of sampling;
- the individual(s) who performed the sampling;
- the dates analyses were performed; and
- the person(s) who performed the analyses.

The QA/QC report shall include all data needed for assessing the validity of the monitoring data presented in the PRCC, which shall specifically include individual test results and statistical data for the analysis of:

- reagent blanks,

- calibration check standards, and
- replicate samples.

If the permittee monitors any pollutant more frequently than required by this permit, using procedures corresponding to those specified in this permit, the result of such monitoring must be utilized in the calculations of average/maximum pollutant discharge and included in the discharge report.

2. Annual Significant Non-domestic User Report

The permittee shall submit, on a form provided by the City, an annual significant non-domestic user report. The report shall provide updated information about the permitee's manufacturing and business activities, materials used or stored, materials which are or may be discharged to the POTW, pre-treatment systems, slug discharge control plans and procedures (if required), and any other information required under the POTW Regulations in an application for a use permit. The permittee shall submit the annual significant non-domestic user report by the 15th day of February of each year for the preceding calendar year (January through December), unless exempted from this requirement, in the use permit or other writing, by the City Director.

3. Categorical Baseline Monitoring Report (As Applicable)

Within one hundred eighty (180) days after the effective date of a national categorical pretreatment standard or the final administrative decision made upon a category determination submission under 40 CFR 403.6(a)(4) whichever is later, which is applicable to any existing or planned discharge made, or to be made, by the permittee, a baseline monitoring report (BMR) shall be submitted to the City. The BMR shall be in accordance with any and all applicable state and federal pretreatment rules and regulations and provide the following information:

- the name and address of the facility, including the name of the operator and owners
- a list of any environmental control permits held by or for the facility;
- a brief description of the nature, average rate of production, and Standard Industrial Classification of the operation or operations carried out by the permittee, including a facility drawing and schematic diagram that indicates points of discharge to the POTW and from which processes the discharges originate;
- the pretreatment standards, including federal, state, and local standards, applicable to each regulated process;
- information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams as necessary to allow use of the combined wastestream formula specified in the federal and state pretreatment regulations and rules;
- information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams as necessary to allow use of the combined wastestream formula specified in the federal and state pretreatment regulations and rules;
- results of sampling and analysis identifying the nature and concentration or mass, where required by the standard or City, of regulated pollutants in the discharge from each regulated process, including both daily maximum and average concentration or mass, where required;
- the time, date, and place of sampling and the methods of analysis and a statement certifying that the sampling and the methods of analysis is representative of normal work cycles and expected pollutant discharges to the POTW; and
- a statement, reviewed by an authorized representative of the permittee and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis and, if not, whether additional operation and maintenance or additional pretreatment is required for the permittee to meet the pretreatment standards and requirements.

In the event that any new source of discharge that will be regulated by a national categorical pretreatment standard is to be commenced by the permittee, not less than ninety (90) days prior to commencing the new discharge, a BMR, shall be submitted to the City. A BMR for a new source shall contain all applicable information required above, except that estimates shall be submitted in lieu of monitoring data.

If additional pretreatment or operation and maintenance will be required to meet the pretreatment standards, the permittee shall submit to the City, in writing, the shortest schedule by which the permittee will provide such additional pretreatment or operation and maintenance, concurrently with the BMR. The completion date in the schedule shall not be later than the compliance date established for the applicable pretreatment standard. All of the following conditions shall apply to compliance schedules:

- The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the permittee to meet the applicable categorical standards, which may include the hiring of an engineer, completing preliminary plans, completing final plans, executing contracts for major components, commencing construction, completing construction, and other similar major events.
- No planned increment of progress shall exceed nine (9) months.
- Not later than fourteen (14) days following each date in the schedule and the final date for compliance, the permittee shall submit a progress report to the City, including, at a minimum, whether or not the permittee complied with the increment of progress to be met on a particular date and if not, the date on which the permittee expects to comply with the increment of progress, the reason for delay, and the steps being taken by the permittee to return the construction to the schedule established.
- Not more than nine (9) months shall elapse between progress reports to the City.

Sampling and analysis shall be performed as follows:

- Samples shall be representative of daily operations.
- A minimum of four (4) grab samples shall be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organics.
- For all other pollutants, 24-hour composite samples shall be obtained through flow-proportional composite sampling techniques where feasible. The City may waive flow-proportional composite sampling, provided that the permittee demonstrates flow-proportional sampling is infeasible. In such cases, samples may be obtained through time-proportional composite sampling techniques or through a minimum of four (4) grab samples where the permittee demonstrates that this will provide a representative sample of the effluent being discharged.
- Except where multiple grab sampling is required above, a minimum of one (1) representative sample for obtaining the required data for the baseline monitoring report shall be taken.
- Samples shall be taken immediately downstream from pretreatment facilities if the facilities exist or immediately downstream from the regulated process if pretreatment facilities do not exist. If other wastewaters are mixed with the regulated wastewater before pretreatment, the permittee shall measure the flows and concentrations necessary to allow use of the combined wastestream formula specified in the federal and state pretreatment regulations and rules. Where an alternate concentration or mass limit has been calculated in accordance with the federal and state pretreatment regulations and rules, the adjusted limit and supporting data shall be submitted to the City.
- Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136. Where 40 CFR Part 136 does not contain sampling and analytical techniques for the pollutant of concern, or where the U.S. Environmental Protection Agency determines that the Part 136 sampling and analytical techniques are inappropriate fro the pollutant of concern, sampling and analysis shall be performed by using validated analytical procedures,

including procedures suggested by the City or other parties, approved by the U.S. Environmental Protection Agency.

If the permittee is involved in a category determination request, or any other permitting process which is required to properly apply the Categorical Standard, the BMR due date shall be stayed until such actions are completed.

4. **Categorical 90-Day Compliance Report (As Applicable)**

Within ninety (90) days following the date for final compliance with a promulgated national pretreatment standard which is applicable to the permittee, or in the case of a new source, following commencement of the discharge into the POTW, a 90-day compliance report shall be submitted to the City. This report shall be in accordance with any and all applicable state and federal pretreatment rules and regulations and provide the following information:

- the average and maximum daily wastewater flows to the POTW, as well as flows from any process regulated by such pretreatment standard;
- the concentration (or mass, where applicable) of any pollutant regulated by such pretreatment standard discharged to the POTW from any process regulated by such pretreatment standard; and
- a statement, reviewed by an authorized representative of the permittee and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis and, if not, whether additional operation and maintenance or additional pretreatment is required for the permittee to meet the pretreatment standards and requirements.

Where direct measurement of the discharge from the regulated process is not physically possible, equivalent concentrations (or mass) may be calculated via mass balance principles; however, this approach must be pre-approved by the City and details of the calculation are also to be included in the report.

5. **Exceedance Notice**

The permittee shall orally report to the City, within twenty-four (24) hours of becoming aware of any discharges, whether intentional or accidental, which are known or reasonably suspected by the permittee to violate Part I of this permit, which includes, by reference, the prohibitions and limitations set forth in the POTW Regulations. The permittee shall, if the exceedance was based on an analyzed sample, re-sample and analyze the discharge and submit the results to the City, as soon as possible, but no later than thirty (30) days after becoming aware of such discharge. Such oral notice shall be given in advance whenever possible and shall contain information regarding the volume, duration, constituents, cause, loading and concentrations, actions taken or to be taken to prevent future exceedances, and such other available information as may be necessary to determine what impact such discharge may have on the POTW. The permittee shall provide a written follow-up notice within five (5) days of the oral notice that contains the same information provided orally and all other relevant information.

6. **Slug Discharge Notice**

The permittee shall immediately notify the City after obtaining knowledge that the permittee has discharged or will discharge wastewater which could cause interference or pass-through in the POTW or which is a slug discharge. Such notice shall be oral and shall be followed by a written notice within five (5) days. The written notice shall describe measures which the permittee will take to prevent such discharges.

7. **Bypass Notice**

(a) If the permittee knows in advance of the need for a bypass, it shall give notice to the city if

possible, at least ten (10) days before the date of the bypass, but in no case less than 24 hours.

(b) A permittee shall give oral notice of an unanticipated bypass that exceeds applicable categorical pretreatment standards and other applicable discharge limits to the city within twenty-four (24) hours from the time the permittee becomes aware of the bypass. A written submission shall also be provided by the permittee to the city within five (5) days of the time the permittee becomes aware of the bypass. The written submission shall contain:

- a description of the bypass and its cause;
- the duration of the bypass (including exact dates and times); and, if the bypass has not been corrected, the anticipated time it is expected to continue; and
- the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

The City may waive the written report if the oral report has been received within twenty-four (24) hours.

8. Changed Discharge Notice

The permittee shall notify the City at least one hundred and eighty (180) days in advance of any anticipated substantial change in the volume of or in the type or amount of pollutants in its discharge to the POTW. Such notice shall be in writing. For purposes of this notice, a substantial change in the discharge to the POTW includes, but is not limited to:

- the initial discharge of any unpolluted water, non-contact cooling water, storm water, surface water, or groundwater, including any groundwater purged for remedial action and groundwater that infiltrates into the POTW;
- an increase or decrease in volume of 20% or more;
- the discharge of pollutants not previously disclosed to the City;
- a change in the amount or type of listed or characteristic hazardous wastes discharged for which the permittee has submitted a notification to the City under part;
- an increase in the amount of any pollutants discharged which may result in a violation of Part I, which includes, by reference, the prohibitions and limits set forth in the POTW Regulations, or a violation of any order of the City Director.

9. Hazardous Waste Notice

If the permittee discharges to the POTW any substance which, if disposed of other than by discharge to the POTW, would be a hazardous waste under 40 CFR 261 or under the rules promulgated under the Michigan Hazardous Waste Management Act, Part 111 of the Natural Resources and Environmental Protection Act ("Michigan Rules"), the permittee shall notify the City Director, the EPA Region V Waste Management Division Director, and the Chief of the Waste Management Division of the Michigan Department of Environmental Quality of such discharge. The notice shall be given within one hundred and eighty (180 days) after the discharge first occurs. The notice shall be in writing and shall include the name of the hazardous waste set forth in 40 CFR 261 or the Michigan Rules, the hazardous waste number, and the type of discharge (continuous, batch, or other). If the permittee discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notice shall also contain the following information to the extent such information is known and readily available to the permittee:

- an identification of the hazardous constituents contained in the wastes;
- an estimation of the mass and concentration of such constituents in the discharge during that calendar month; and
- an estimation of the mass of constituents expected to be discharged during the following 12 months;

Notification must be submitted for each hazardous substance discharged, but is not required for pollutants already reported under self-monitoring by the permittee under Categorical Pretreatment Standard reporting requirements. The permittee is exempt from notification during a calendar month in which it discharges no more than fifteen (15) kilograms of hazardous wastes unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e). Where a new regulation first defines a substance as a hazardous waste, notification shall be given within ninety (90) days of the effective date of such regulation. In any notice submitted under this part, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

10. Radioactive Materials Notice

If the permittee's discharge contains or could contain radioactive materials, the permittee shall notify the City Director of that fact as soon as possible after becoming aware of it.

11. New Pretreatment Facilities Notice

The permittee or its authorized agent shall notify the City in writing, at least fifteen (15) days before the installation of new pretreatment facilities, of the date it intends to commence operation thereof.

12. Written/Verbal Submittals

(a) All written reports and notices required to be submitted under this part shall be directed to:

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road, Flint, Michigan 48532

(b) All verbal reports and notices required to be made under this part shall be directed to the Environmental Compliance Supervisor (8:00 a.m. to 5:00 p.m., Monday through Friday) or to the Operations Foreman on duty, via the Water Pollution Control Division's 24-hour telephone number at (810) 766-7210.

(c) All written reports and notices required to be submitted to the City under this part shall be properly signed and certified. The person signing reports and notices shall make the following certification in the report or notice:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Before any person signing any report or notice may submit the same to the City, the permittee shall inform the City in writing and with particularity how the individual meets the criteria for persons who are eligible to do so under Michigan Rule R 323.2310(11).

PART II

A. GENERAL RESPONSIBILITIES

1. Monitoring Procedures

a. The prohibitions and limits in this permit and the POTW Regulations, shall apply at the point where wastewater and pollutants are discharged into the POTW. Required pretreatment and sampling for analysis of parameters specified in a use permit, discharge limit, CPS, or any discharge prohibition, limitation, or standard shall be effected before such point is reached.

b. All measurements, sampling, tests, and analyses of the discharge shall be determined in accordance with the EPA-approved methods contained in 40 CFR, Part 136. In cases where 40 CFR 136 procedures are not available for or do not apply to the pollutant involved, other sources such as "Standard Methods for the Examination of Water and Wastewater," published by the American Public Health Association, or the most current methods published by the American Society for Testing Material (ASTM) or another method accepted by the City Director may be used.

c. All samples shall be collected at a time and in a manner that ensures they are representative of the wastewater discharged when the Permittee's normal operations are occurring, except when required by the city to be collected at another time or in another manner.

d. Sampling to measure the instantaneous concentration shall be done by collecting one grab sample.

e. Sampling to measure the daily concentration shall be done by collecting a 24-hour, flow-proportioned composite sample, except that a minimum of 4 grab samples shall be collected in lieu of a 24-hour, flow-proportioned composite sample for pH, cyanide, Total Phenols, Hexane-extractable Material, sulfide, and volatile organic compounds. If it is not feasible to obtain a flow-proportioned composite sample, a time-proportioned composite sample or a minimum of 4 grab samples may be used in lieu of the flow-proportioned composite sample if the permittee demonstrates to the City Director that a representative sample will be obtained. Samples shall be collected during a single 24-hour period.

f. The date when a sample is taken, start time, stop time, sample type, sample location, sampler programming information, persons involved in the sampling, and any other data specified in advance by the City Director, shall be recorded by the Permittee.

g. The permittee shall calibrate and perform appropriate maintenance procedures, in accordance with any and all instructions, specifications, and/or recommendations of the manufacturer, on all monitoring equipment and analytical instrumentation, where applicable, whenever and as often as needed for ensuring accurate measurements.

2. Spill Prevention and Remediation (if applicable)

If the permittee uses or stores liquid material at its facilities, it shall, at its expense:

- provide a storage or use area at its facilities which is capable of containing the liquid material so that liquid material cannot escape therefrom by gravity through private sewers, underground percolation and infiltration, or otherwise into the POTW in an amount which would result in a prohibited discharge to the POTW; and
- establish and follow procedures for preventing, managing, and remediating accidental spills, leaks, or escapes of liquids.

3. Posting of Use Permit and Notice of Exceedance Information (if applicable)

If the permittee stores substances which potentially could be discharged to the POTW in concentrations which exceed any discharge prohibition in the POTW Regulations, the permittee shall post a clearly legible set of instructions in the area where the wastewater is managed so that the report and notice requirements in Part I.B are made known and are available to the permittee's employees. The permittee shall also post this permit along with these instructions. The permittee shall instruct its employees who have wastewater responsibilities on these reporting and notice requirements.

4. Requirement for Interceptors

Interceptors or more elaborate pretreatment systems shall be properly installed, used, and maintained by the permittee for the proper pretreatment of wastewater containing, or potentially containing, floating or suspended hexane-extractable material or viscous or dense substances which, if discharged, would be a prohibited discharge under Part I, in accordance with the POTW regulations.

5. Pretreatment Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control, and related appurtenances, which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes, but is not limited to the following: effective performance, adequate funding, adequate operator staffing and training, as well as adequate laboratory and process controls including appropriate quality assurance procedures. The permittee shall utilize back-up or auxiliary facilities, or a similar system, when necessary to achieve compliance with the conditions of this permit. A new pretreatment facility shall not be placed in regular operation until tests have been conducted by the permittee to establish that the discharges will be in compliance with this permit. A representative of the City shall be permitted to witness the tests upon prior written request. The cost of the tests shall be paid by the permittee.

6. Pretreatment System Bypass

Pretreatment system bypass is prohibited, and the City may take enforcement action against the permittee for a bypass, unless:

- bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- there were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime; and
- the permittee gave notice as required in Part I.B of this permit.

This exception is not applicable if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.

The City may approve an anticipated bypass, after considering its adverse effects, if the City determines that it will meet the 3 conditions listed above.

7. Duty to Control Production or Discharges

The permittee shall control production or all discharges to the extent necessary to maintain compliance with Categorical Pretreatment Standards and other applicable discharge limits upon

reduction, loss, failure, or abnormal condition of its process or treatment facility until the process and facility are restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the premittee's treatment facility is reduced, lost, or fails.

8. Retention of Records

The permittee shall maintain copies of all reports, information records, and all other information pertaining to those reports and to any sampling and analyses activities. Such reports, records, and information shall be retained by the permittee for at least three (3) years. This period shall be extended during the course of any unresolved litigation regarding the permittee or the POTW pretreatment program or when requested by the City Director, the State Director, or EPA. It the permittee has records regarding its generation, treatment, storage, or disposal of hazardous waste or solid waste, the permittee shall maintain such records for such period and make them available to the City for inspection and copying, subject to the provisions of the POTW Regulations. The terms "hazardous waste" and "solid waste" shall have the same definition as provided in the Michigan Hazardous Waste Management Act, as amended, and rules promulgated thereunder.

C. GENERAL CONDITIONS

1. Definitions

Unless the context specifically indicates otherwise, the meaning of terms used in this permit shall be in accordance with definitions set forth in the POTW Regulations or hereto as follows:

a. **Act** means the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C 1251, et seq., and all rules promulgated thereunder.
b. **Bypass** means the intentional diversion of waste streams away from any portion of a user's treatment facility needed for compliance with pretreatment standards to a point of discharge.
c. **Categorical pretreatment standards** means pollutant limits for discharges to POTWs, promulgated by the EPA in 40 CFR Chapter I, Subchapter N, Parts 405, et seq., in accordance with 307(b) and (c) of the Act, which are applicable to a non-domestic user which engages in a category or categories of industry that are subject to regulations listed in the definition for "categorical pretreatment standards" in the POTW Regulations.
d. **City** means the City of Flint, Michigan, a municipal corporation.
e. **City Director** means the director of the Department of Utilities of the City or other person or persons designated by that person or by the city administrator to exercise control over City collection system and the POTW treatment plant or certain matters relating to the city collection system or the POTW treatment plant.
f. **CFR** means the Code of Federal Regulations.
g. **Code** means the Code of the City of Flint, Michigan.
h. **Cooling water** means the water discharged from any use in which the only pollutant added is heat, shall be considered non-contract cooling water. Water discharged from any use in which heat and other pollutants have been added, shall be considered as contact cooling water.
i. **Daily concentration** means the sum of all concentration measurements for any 24-hour period divided by the number of such measurements.
j. **Discharge** means the introduction (including infiltration) of pollutants into the POTW which is either intentional or unintentional.
k. **Grab sample** means a sample which is taken from a discharge with no regard to the flow which is collected over a period of time not exceeding 15 minutes.
l. **Groundwater** means water which is pumped or otherwise captured from the ground and which is not used in a process. Mere treatment of groundwater is not use in a process.
m. **EPA** means the United States Environmental Protection Agency or its successor.
n. **Hexane-extractable material** means any material, such as fat, oil, or grease, which is

recoverable from wastewater by extraction with n-hexane, using epa test method 1664, revision a, and as defined therein.

o. **Instantaneous concentration** means the concentration in any grab sample.

p. **Interceptor** means a structure or device designed for removing floating or suspended hexane-extractable material and other viscous or dense substances from wastewater, by physical separation, prior to discharging the wastewater into the POTW.

q. **Interference** means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (i) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and, (ii) therefore, is a cause of a violation of any requirement of the NPDES permit for the POTW, the Act, or State Act (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or any more stringent state or local regulations): Section 405 of the Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research, and Sanctuaries Act.

r. **mg/L** means milligrams per liter.

s. **ug/L** means micrograms per liter.

t. **MDEQ** means the Michigan Department of Environmental Quality or its successor.

u. **Pass through** means a discharge which exits the POTW into Waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, cause a violation of any requirement of the Act or State Act.

v. **Pollutant** means any material which is discharged to the POTW or is proposed for discharge to the POTW. The term also includes properties of such materials such as pH and heat.

w. **Potentially Harmful Substance (PHS)** means:
   - Corrosive substances which have a pH of less than or equal to 2.0 Standard Units or greater than or equal to 12.0 Standard Units.
   - Ignitible substances which have a closed-cup flash point of less than 140° F (60 °C).
   - Reactive substances which are normally unstable and readily undergo violent change without detonating; react violently with water; form potentially explosive mixtures with water; when mixed with water, generate toxic gases, vapors, or fumes in a quantity sufficient to endanger humans; or are capable of detonation or explosive reaction.
   - Biocides which eradicate organisms (i.e., disinfectant, insecticide, rodenticide, herbicide, etc.).
   - Carcinogens which cause an increased incidence of benign or malignant neoplasms in animals or humans or that substantially decreases the time in which neoplasms develop in animals or humans.
   - Any substance listed in the Register of Potentially Harmful Substances in the Appendix.
   - Any other substance which, if discharged in an excessive amount, would violate Part I.

x. **POTW** means a publicly owned treatment works, as defined by Section 212 of the Act, which are owned by the City and the collection system. The term also means the City or its authorized representative. This term includes any devices, processes, and systems used by or for the City in the storage, treatment, recycling, or reclamation of wastewater or sludge from the treatment works or the collection system.

y. **POTW Regulations** means Chapter 46, Article V, Division 2 of the Municipal Code of the City of Flint.

z. **Pretreatment** means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into the POTW. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes, or by other means, except for the use of dilution, unless expressly authorized by an applicable pretreatment standard or requirement.

aa. **Process wastewater** means any water which, during manufacturing or processing, comes

into direct contact with, or results from, the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

bb. **Severe property damage** means substantial physical damage to property, damage to the treatment facilities of a user which causes them to become all or partially inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

cc. **Slug discharge** means a discharge of a non-routine, episodic nature, including, but not limited to, an accidental spill or a non-customary batch discharge.

dd. **State Act** means Part 31 Water Resources Protection of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, and all rules promulgated thereunder.

ee. **Toxic Organics** means the compounds listed as "Toxic Organics" in the Appendix.

ff. **Wastewater** means Water discharged to the POTW by a user which may or may not contain other pollutants. This term does not include storm water, surface runoff, or non-contaminated groundwater and non-contact cooling water.

2. Right of Entry

Authorized representatives of the City exhibiting proper credentials and identification shall be permitted at all reasonable times, and at any time in an emergency, to enter the permittee's property without delay for the purposes of inspection, observation, measurement, sampling, and testing in connection with the administration and enforcement of this permit and the POTW Regulations.

3. Limitations of Permit Transfer

This permit shall not be assigned, transferred, or sold to a new owner without approval of the City. As described in the Code, in the event of any change in ownership of facilities from which the authorized discharge emanates, written notification of proposed permit transfer must be provided to the City. Included shall be an agreement specifying a date for transfer of permit responsibility, and coverage between the current and new permittee which acknowledges liability for any violation which occurs before and after that date.

This permit is issued to the permittee for a specific operation at a specific location and it is, therefore, not assignable to another sewer user or transferable to any other location without prior written approval of the City Director. The City Director shall approve a use permit transfer and make the necessary minor modifications to the use permit to show the transferee as the permittee, if the transferor demonstrates to the city the following conditions exist:

- the transferor has not violated any provision on this permit or of the POTW Regulations during the 6-month period preceding the date of the transfer;
- as of the date of the transfer, there are no unpaid charges or fees due to the city from the transferor related to use of the POTW;
- the application for the use permit filed by the transferor remains the same with respect to the discharge, facilities, and activities of the transferee, except as to the identity of the discharger; and
- the transferor provides written evidence to the City Director that a copy of the use permit has been provided to the transferee.

If these conditions are not met, then no transfer shall occur and a new use permit is required.

4. Permit Term

The term of this use permit shall not to exceed five (5) years. The permittee shall apply for re-issuance of this use permit by submitting a complete application at least one hundred and eighty

(180) days before the expiration of this use permit. If application for renewal is timely submitted, the existing use permit shall continue until final action is taken by the City Director on the application for renewal. Otherwise, the existing use permit shall expire on its stated expiration date and the permittee shall cease its discharge.

5. Permit Modification

The City Director shall have the right to modify this permit in order to:

- assure compliance by the POTW with applicable laws and the POTW NPDES permit;
- account for changes in discharges by the permittee;
- account for new information concerning the pollutants discharged by the permittee;
- reflect changes in federal or state laws and regulations or in City ordinances;
- accommodate operational changes at the POTW that, as determined by the City Director, require revision of the use permit;
- modify or terminate any special arrangement contained in a use permit; or
- assure compliance by the permittee with this permit , the POTW Regulations, or other applicable laws.

The permittee shall be informed of any modifications in this permit at least thirty (30) days prior to the effective date of the modification, unless a shorter time is necessary to meet applicable law or to protect human health, the environment, or the POTW.

6. Revocation of Permit

The City Director may revoke this permit during its term or deny its renewal if:

- the permittee has failed to comply with any condition of this permit;
- the permittee fails, in the use permit application or during the use permit issuance process, to disclose fully all relevant facts to the City, or the permittee misrepresents any relevant fact at any time to the City;
- the City Director determines that the permitted discharge endangers human health, the environment, or the POTW and the threat can only be abated by revocation or denial of this permit;
- a change in any condition that requires either a temporary or permanent reduction or elimination of the discharge;
- the permittee is in default, after having received written notice of such default, in the payment of fees or other amounts owed to the City related to wastewater matters; or
- non-compliance by the permittee with any provision of the POTW Regulations.

Upon revocation or denial of this permit, the permittee shall immediately terminate its discharge to the POTW.

7. Property Rights Exclusion

The issuance of this permit conveys neither any property rights in either real or personal property, nor any exclusive privileges. It also authorizes neither any injury to private property or invasion of personal rights, nor infringement of Federal, State, or local laws or regulations.

8. Severability

If any provision, paragraph, word, or part of this permit is invalidated by any Code revision or any court of competent jurisdiction, the remaining provisions, paragraphs, words and parts shall not be affected and shall continue in full force and effect.

9. Monitoring/Inspection Fees

The permittee shall reimburse the City for any and all expenses incurred as a result of any monitoring or inspection conducted by or for the City at the permittee's facility.

10. Penalties for Violations

The permittee shall comply with all of the provisions of this permit. A violation of any provision of this permit is a violation of the POTW Regulations, subject to the penalty, damage, compensatory charge, and other enforcement provisions of the POTW Regulations, as follows:

a. *Continuing Violations.* Each day on which a violation of this permit, an order, or the POTW Regulations occurs shall be a separate violation. Every violation of each part of this permit shall be a separate violation.

b. *Civil Judicial Relief.* The City Director, through the City Attorney, may pursue an action at law or in equity to enjoin, abate, or prosecute any violation of this permit. The City Director may seek temporary or permanent injunctive relief, damages, compensatory charges, and/or civil penalties under the POTW Regulations; and such other relief as a court may order.

c. *Civil Penalties.* In an action brought by the City against the permittee for violation of this permit, a court may impose a civil penalty of up to five thousand dollars ($5,000) per day per violation. In calculating the amount of the penalty, the court shall consider the frequency of the violation; the impact on the POTW, human health, and the environment; the magnitude and duration of the violation; the economic benefit to the permittee from the violation; the compliance history of the permittee; and other factors deemed appropriate by the court.

d. *Municipal Civil Infraction; Civil Fine.* The City Director and City Enforcement Officers are authorized to issue a municipal civil infraction citation ("citation"). For any violation of this permit, except for certain criminal violations. The civil fine for any violation of this permit shall be up to five thousand dollars ($5,000) per violation per day. In calculating the amount of the civil fine, the City Director or the court, as applicable, shall consider the frequency of violation by the permittee, the impact on the POTW and human health and the environment of the violation, the magnitude and duration of the violation, the economic benefit to the permittee gained by the violation, the compliance history of the permittee, and other factors deemed appropriate by the court or the City Director as applicable.

e. *Cumulative Remedies.* The imposition of a single civil penalty, civil fine, criminal fine, order, damage, or compensatory charge upon the permittee for a violation of this permit shall not preclude the imposition by the City or a court of additional sanctions and remedies with respect to the same violation except that the permittee shall not have both a civil penalty and a civil fine imposed on it for the same violation. Prosecution of a criminal action against the permittee shall not be stayed pending the outcome of a civil action involving the same violation.

f. *Compensatory Charges.* In addition to prosecution and the imposition of penalties and fines for violations of this permit, the permittee shall be subject to one or more compensatory charges in accordance with the POTW Regulations.

g. *Violation Constitutes a Public Nuisance.* Violations of this permit are a public nuisance.

h. *Criminal Violations.* If the permittee willfully or intentionally violates any provision of this permit, the permittee shall, upon conviction, be guilty of a misdemeanor, punishable as provided in the Code. If the permittee knowingly makes any false statements, representations, or certifications in any application, record, report, plan, or other document filed or required to be maintained pursuant to this permit; or if the permittee falsifies, tampers

with, or knowingly renders inaccurate any monitoring device or method required under this permit or the POTW Regulations, the permittee shall, upon conviction, be guilty of a misdemeanor punishable as provided in Code. Each day of violation is a separate offense.

PART III

A. SPECIAL TERMS AND/OR REQUIREMENTS

1. Soil-cleanup Groundwater Discharge Variance

a. This permit establishes a variance to Section 46-146(b)(12) of the POTW Regulations for discharging groundwater to the POTW, per written request from the sanitary sewer application ("the request"), dated November 7, 2011, submitted to the City by the permittee, which provided specific information about proposed discharges.

b. The permittee is hereby **ONLY** authorized to discharge soil cleanup groundwater pumped from the sources and contaminated with the pollutants specifically identified in the requests. This permit does **NOT** authorize the discharge of water from any other source.

c. The permittee shall temporarily withhold the groundwater discharge for up to ninety-six (96) hours upon request by the City, after which the discharge may be resumed upon prior oral notification to the City. This does not preclude the City from requiring the permittee to withhold the groundwater discharge for longer than ninety-six (96) hours.

2. Controlling the Discharge Rate

The permittee's discharge to the POTW shall not cause or contribute to hydraulic overloading at any point in the POTW.

- The permittee shall immediately reduce or temporarily withhold the discharge, during wet weather events equivalent to 1 inch of rain per 24 hour period or greater, and as needed for preventing or abating hydraulic overloading, upon receipt of a written or oral request by the City WPC Supervisor.

- The permittee shall have a written plan, reviewed and accepted by the City, for controlling the discharge in a timely, reliable manner. The City may require the permittee to revise this plan, whenever needed.

- The permittee shall not exceed the maximum daily flow rate of 25 gallons per minute or exceed the daily maximum flow volume of 36,000 gallons per day.

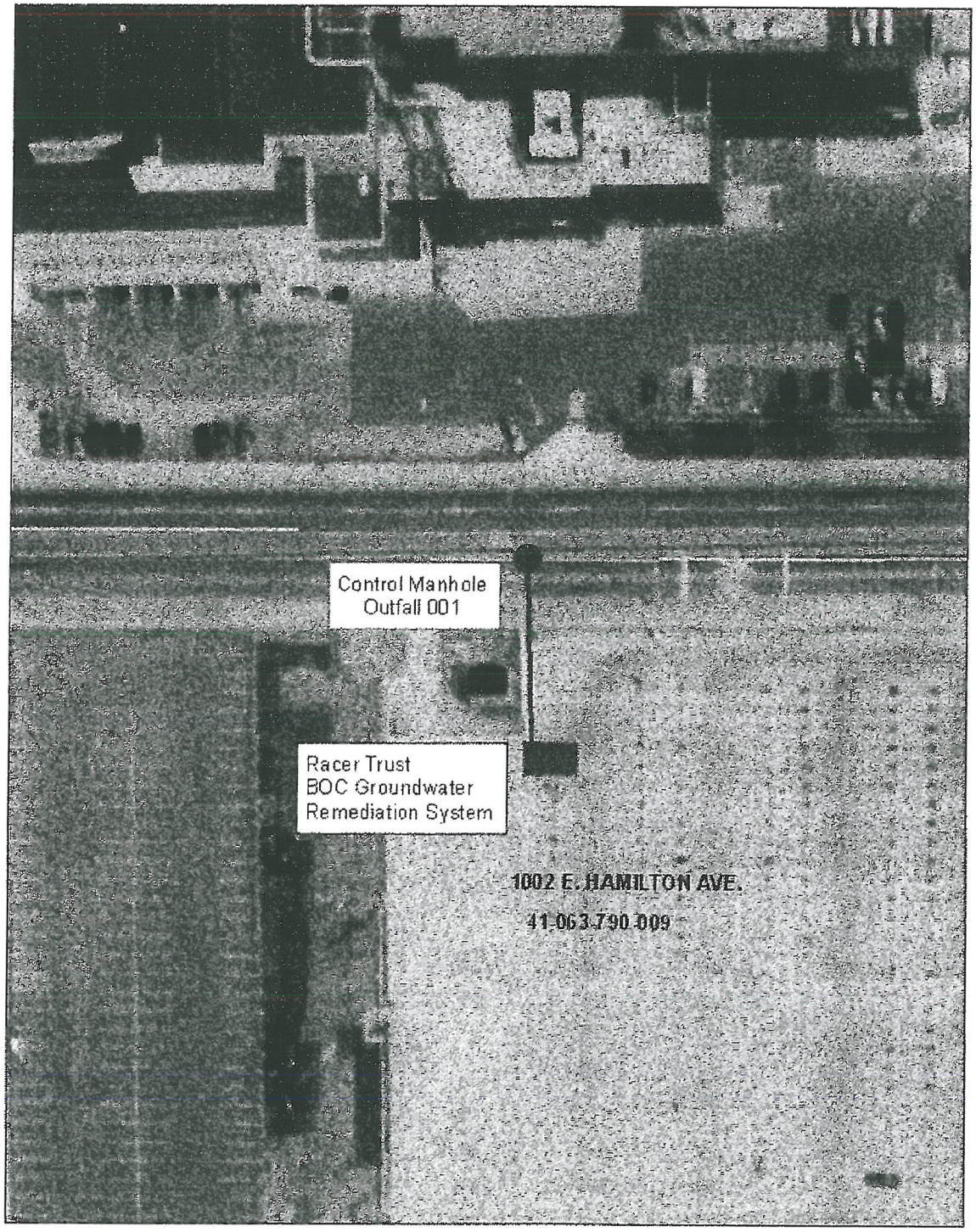
2. Discharge Metering

The permittee shall, at all times, meter the rate and daily volume of its discharge to the POTW, using a flow metering system approved by the City Director.

B. APPENDIX

1. Site Drawing
2. Meaning of Abbreviations
3. Generally Applicable Prohibitions and Limits
4. List of Toxic Organics
5. Register of Potentially Harmful Substances
6. Monthly Self-monitoring Report Form

Racer Trust BOC Ground Water Remediation - Old GM Powertrain Flint North Site



Legend

- Sanitary Manholes
- Sanitary Sewers
- Streets

N

USE OF THE PUBLICLY OWNED TREATMENT WORKS

§ 46-142 PURPOSE AND SCOPE.

(a) *Purpose.* The purpose of this Division is to establish standards, rules, and regulations with respect to the use of the POTW; to provide for certain rates and charges for use of the system and to prevent pollution of the environment.

(b) *Scope.* This Division shall apply to the City of Flint. Any other municipality, drainage district, or other political subdivision of the State that discharges into the POTW which has the power to enact ordinances shall adopt an ordinance which is substantially similar to this Division and which is approved by the City as being sufficiently similar. This Division provides for the regulation of discharges into the POTW through the issuance of use permits to significant non-domestic users, through monitoring and enforcement activities, and through required discharger reporting.

§ 46-143 DEFINITIONS.

For the purposes of this Division, the following words and phrases shall have the meanings described in this Section, unless the context in which they are used specifically indicates otherwise.

ACT. The term "Act" means the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C l *1251,* et seq, and all rules promulgated thereunder.

BEST MANAGEMENT PRACTICES (BMPS). Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 CFR, Chapter I, Subchapter N, Part 403.5(A)(1) and (B). BMPs also includes treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage, any of which may enter the POTW.

BIOCHEMICAL OXYGEN DEMAND. The quantity of oxygen utilized in the biochemical oxidation of organic matter and biologically oxidizable inorganic matter under standard laboratory procedures for 5 days, at 20 degrees celsius, expressed in milligrams per liter concentration, using method 5210 B in *Standard Methods for the Examination of Water and Wastewater,* current edition.

CATEGORICAL PRETREATMENT STANDARDS (CPS). Pollutant limits for discharges to POTWs, promulgated by US EPA in 40 CFR Chapter I, Subchapter N, Parts 405, et seq, in accordance with 307(b) and (c) of the Act, which are applicable to a non-domestic user which engages in a category or categories of industry that are subject to the following regulations:

Effluent Guidelines and Standards for Electroplating (40 CFR 413)
Effluent Guidelines and Standards for Organic Chemicals, Plastics, and Synthetic Fibers (40 CFR 414)
Effluent Guidelines and Standards for Inorganic Chemicals (40 CFR 415)
Effluent Guidelines and Standards for Fertilizer Manufacturing (40 CFR 418)
Effluent Guidelines and Standards for Petroleum Refining (40 CFR 419)
Effluent Guidelines and Standards for Iron and Steel Manufacturing (40 CFR 420)
Effluent Guidelines and Standards for Nonferrous Metals (40 CFR 421)

Effluent Guidelines and Standards for Steam Electric Power Generating (40 CFR 423)
Effluent Guidelines and Standards for Leather Tanning and Finishing (40 CFR 425)
Effluent Guidelines and Standards for Glass Manufacturing (40 CFR 426)
Effluent Guidelines and Standards for Rubber Processing (40 CFR 428)
Effluent Guidelines and Standards for Timber Products (40 CFR 429)
Effluent Guidelines and Standards for Pulp, Paper and Paper Board (40 CFR 430)
Effluent Guidelines and Standards for Metal Finishing (40 CFR 433)
Effluent Guidelines and Standards for Centralized Waste Treatment (40 CFR 437)
Effluent Guidelines and Standards for Pharmaceutical Manufacturing (40 CFR 439)
Effluent Guidelines and Standards for Transportation Equipment Cleaning (40 CFR 442)
Effluent Guidelines and Standards for Waste Combustors (40 CFR 444)
Effluent Guidelines and Standards for Landfills (40 CFR 445)
Effluent Guidelines and Standards for Pesticide Chemicals Manufacturing (40 CFR 455)
Effluent Guidelines and Standards for the Battery Manufacturing Point Source Category (40 CFR 461)
Effluent Guidelines and Standards for Metal Molding and Casting (40 CFR 464)
Effluent Guidelines and Standards for Coil Coating (40 CFR 465)
Effluent Guidelines and Standards for Porcelain Enameling (940 CFR 466)
Effluent Guidelines and Standards for Aluminum Forming (40 CFR 467)
Effluent Guidelines and Standards for Copper Forming (40 CFR 468)
Effluent Guidelines and Standards for Electrical and Electronic Components (40 CFR 469)
Effluent Guidelines and Standards for Nonferrous Metals Forming and Metal Powders (40 CFR 471)

COOLING WATER. The water discharged from any use in which the only pollutant added is heat, shall be considered non-contract cooling water. Water discharged from any use in which heat and other pollutants have been added, shall be considered as contact cooling water.

CPS. Categorical Pretreatment Standards.

DAILY CONCENTRATION The sum of all concentration measurements for any 24-hour period divided by the number of such measurements.

DISCHARGE. The introduction (including infiltration) of pollutants into the POTW which is either intentional or unintentional.

FLASHPOINT. The minimum temperature at which vapor comubustion will spread away from its its source of ignition.

GRAB SAMPLE. A sample which is taken from a discharge with no regard to the flow which is collected over a period of time not exceeding is minutes.

GROUNDWATER. Water which is pumped or otherwise captured from the ground and which is not used in a process. Mere treatment of groundwater is not used in a process.

HEXANE-EXTRACTABLE MATERIAL.
Any material, such as fat, oil, or grease, which is recoverable from wastewater by extraction with N-Hexane, using EPA Test Method 1664, Revision A, and as defined therein.

HAZARDOUS SUBSTANCE. Any substance as defined in Part 201 of the Michigan Natural

mg/L. Milligrams per liter.

INSTANTANEOUS CONCENTRATION. The concentration in any grab sample.

INTERFERENCE. A discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (i) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and, (ii) therefore is a cause of violation of any requirement of the NPDES permit for the POTW, the Act, or State Act (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or any more stringent state or local regulations): Section 405 of the Act, the Solid Waste Disposal Act [SWDA] (including Title II, more commonly referred to as the Resource Conservation and Recovery Act [RCRA], and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research, and Sanctuaries Act.

MAXIMUM ALLOWABLE INDUSTRIAL LOADING. The daily maximum mass of a pollutant, in pounds per day, which may be allowed by the City to be discharged to the POTW by the aggregate of all non-domestic users.

ug/L. Micrograms per liter.

NON-DOMESTIC USER. A user that discharges pollutants other than, or in addition to, sanitary sewage, but not including a user that is a municipality, drainage district, or other political subdivision of the state that only discharges from its own collection system to the City's collection system.

NPDES PERMIT. A permit issued pursuant to the National Pollutant Discharge Elimination System to regulate the discharge of wastewater into the surface waters of the state.

PASS THROUGH. A discharge which exits the POTW into waters of the state in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, cause a violation of any requirement of the Act or State Act.

PERSON Any individual, firm, municipality, company, association, society, corporation, partnership, or group, including their officers and employees who have responsibility for or actual involvement in the matters regulated by this Division.

pH. The logarithm (base 10) of the reciprocal of the concentration of Hydrogen ions in moles per liter of solution.

POLLUTANT. Any material which is discharged to the POTW or is proposed for average dry weather hydraulic or organic capacity of the POTW.

POTW. Publicly Owned Treatment Works, as defined by Section 212 of the Act, which are owned by the City and the collection system. The term also means the City or its authorized representative. This term

includes any devices, processes, and systems used by or for the City in the storage, treatment, recycling, or reclamation of wastewater or sludge from the treatment works or the collection system.

POTW TREATMENT PLANT. The POTW exclusive of the collection system.

PREMISES. A lot or parcel of land, generally, or each lot or parcel of land, or building, having any connection, direct or indirect, to the POTW, as the context of the word within this Division dictates.

SANITARY SEWAGE. Wastewater or pollutants from toilet, kitchen, laundry, bathing, or other facilities all of which are used for household purposes or for non-commercial purposes at a commercial location.

SEVERE PROPERTY DAMAGE. Substantial physical damage to property, damage to the treatment facilities of a user which causes them to become all or partially inoperable, or substantial and permanent loss of natural resources occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

SEWER. A pipe or conduit for carrying wastewater, storm water, surface runoff, or groundwater.

SLUDGE. Solids or other residue, either of which are separated from wastewater and generated by any treatment process, or solids or other residue directly separated from a production process.

SOURCE. Any building, structure, facility, vehicle, or installation from which there is or may be a discharge to the POTW.

STATE ACT. Part 31 Water Resources Protection of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, and all rules promulgated thereunder.

TOTAL SUSPENDED SOLIDS. Solids that either float on the surface of; or are in suspension in, wastewater and which can be recovered by standard laboratory filtering, using Method 2540 D in *Standard Methods for the Examination of Water and Wastewater,* current edition.

US EPA. The United States Environmental Protection Agency or its successor.

USER. A person who discharges into the POTW and a municipality or drainage district whose collection system discharges into the POTW.

WASTEWATER. Water discharged to the POTW by a user which may or may ot contain other pollutants. This term does not include storm water, surface runoff, or non-contaminated groundwater and non-contact cooling water.

§ 46-146 DISCHARGE PROHIBITIONS AND LIMITS.

(a) *Discharge Prohibitions.* The provisions in this Section are intended to:

(1) prohibit the discharge to the POTW of wastewater which may cause pass-through or interference or which could have detrimental effects on the physical structures or operating personnel of the POTW, or on the general public or the environment, and

(2) restrict the discharge to the POTW of storm water, groundwater, and non-contact cooling water.

(b) *Prohibited Discharges.* No user shall discharge, cause to be discharged, or allow to be discharged into the POTW any of the following:

(1) pollutants which may or do create a fire or explosion hazard in the POTW, including, but not limited to, pollutants or wastewater with a closed cup flashpoint of less than 140° Fahrenheit (60° Celsius), as determined by a Pensky-Martens closed cup tester, using the test method specified in ASTM Standard D-93-79 or D-93-80K (incorporated by reference, see 40 CFR § 260.21) or a Setaflash closed cup tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see 40 CFR § 260.21), and pollutants which exceed 10% of the lower explosive limit (LEL) at any point within the POTW;

(2) pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute or chronic health and safety problems for workers or exceed any applicable occupational health or safety standard;

(3) pollutants which may or do cause corrosive or abrasive structural damage to the POTW;

(4) solid or viscous pollutants in amounts which may or do obstruct flow or cause interference in the POTW;

(5) wastewater having an instantaneous pH less than 6.0 or greater than 10.5;

(6) any pollutant, including oxygen-demanding pollutants, released in a discharge at a flow rate and/or pollutant concentration which may or do cause interference in the POTW;

(7) pollutants which may or do cause:

a. Restriction of hydraulic capacity of structures in the POTW;

b. Unsafe conditions to personnel in the operation, inspection, or maintenance of the POTW or unsafe conditions to the general public, with respect to the collection system;

c. Exceptional or unreasonably burdensome effort, attention, or expense in the operation or maintenance of the POTW.

d. Heat in amounts which will inhibit biological activity in the POTW, resulting in interference, but in no case heat such that the temperature at the discharge to the collection system exceeds 150° Fahrenheit (66° Celsius) or the influent at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius).

(8) pollutants which may or do cause pass-through or interference.

(9) any pollutants which exceed, for that user, the limitations set forth in a Categorical Pretreatment Standard, as adjusted under the Combined Wastestream Formula in Michigan Rule R 323.2311(7), which may be expressed as concentration limits, mass limits, or both, as provided in Michigan Rule R 323.2311(5). A Categorical Pretreatment Standard shall be adjusted if 40 CFR 403.15 applies and the criteria of 40 CFR 403.15(b) and (c) are met (net/gross calculation).

(10) any liquids, gases, or solids which either singly or by interaction with other substances may or do create a public nuisance.

(11) any pollutant introducing colors not removed in the POTW treatment process, such as but not limited to, dye wastes and vegetable tanning solutions.

(12) any unpolluted water, non-contact cooling water, storm water, groundwater or surface water, unless the City Director gives written permission to the user for the discharge of such waters based on available hydraulic capacity and potential impacts on the POTW treatment capability. The scope and duration of the discharge of such waters shall be determined at the sole discretion of the City Director.

(13) any radioactive wastes in harmful quantities as such quantities are defined by applicable State and Federal regulations.

(14) any grease or other pollutants that will become solid or viscous at a temperature of 140° Fahrenheit (60° Celsius) or below after being discharged into the POTW.

(15) hazardous substances that were not listed or disclosed in the user's application for a use permit that:

a. May or do cause or contribute to a violation of State or Federal water quality standards in the receiving waters to which the POTW discharges; or

b. Result in or contribute to a liability of the City under Part 201 of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, or the Federal Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended (CERCLA). Nothing in this paragraph determines the percentage share or allocation share amount of a user's Part 201 or CERCLA liability.

(16) hazardous substances in quantities exceeding the numerical limit in a user's use permit which:

a. May or do cause or contribute to a violation of State or Federal water quality standards in the receiving waters to which the POTW discharges; or

b. Result in or contribute to a liability of the City under Part 201 of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, or the federal comprehensive environmental response compensation and liability Act of 1980, as amended (CERCLA). Nothing in this paragraph determines the percentage share or allocation share amount of a user's Part 201 or CERCLA liability.

(17) sludge, unless the City Director has determined that it is amenable to treatment by the POTW and does not otherwise violate any discharge prohibition.

(18) any new or used petroleum oil or grease, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that may or do cause interference or pass-through.
Concentration limits for specific pollutants.

(c) *Pollutant Concentration Limits.*

(1) discharges made by non-domestic users having concentrations of specific pollutants greater than the pollutant concentration limits described in table 404(c) in the appendix at the end of this Division are prohibited, except as regulated under Subsection d of this Section.

(2) *Measurement of Pollutant Concentrations.*

a. The instantaneous concentration limit for a specific pollutant shall apply to the instantaneous concentration of the pollutant measured by sampling in accordance with § 46-149(a)(3)a.

b. The daily concentration limit for a specific pollutant shall apply to the daily concentration of the pollutant measured by sampling in accordance with § 49-149(a)(3)b.

(d) *Special Arrangements.* The City Director may establish a special arrangement between the City and a user in a use permit or an order that allows discharges to the POTW that are otherwise prohibited by this Section. A special arrangement shall not cause the City to violate any NPDES permit provisions. The special arrangement may include special alternative limits (SALs) that are greater or less than the discharge limits in Subsection (c) of this Section. A special arrangement may also include requirements for best management practices (BMPs) in addition to, but not in lieu of, any discharge limit. BMPs shall be established in a use permit if the user is a Significant Non-domestic User. The decision to establish a special arrangement shall be made at the sole discretion of the City Director. The special arrangement may be terminated or modified at will at any time by the City. A special arrangement shall not create any vested rights or property rights in the user. A special arrangement shall create no rights to discharge to the POTW that the user would not have had in the absence of a special arrangement. Provisions relating to termination or modification of a special arrangement may be more fully set forth in the special arrangement document. As a condition precedent to the entry into a special arrangement, the City shall require the user to sign an acknowledgement and acceptance of the provisions of this Subsection. Any special arrangement may contain provisions for the user to pay a compensatory charge to the City. A special arrangement shall not allow a discharge that exceeds a Categorical Pretreatment Standard unless a removal credit or a fundamentally different factor variance applies to allow the user to exceed the otherwise applicable Categorical Pretreatment Standard. In such case, the special arrangement shall not allow a discharge that exceeds the limit allowed by the removal credit or variance. A violation of the terms of a special arrangement, including any SALs, BMPs, or special pretreatment requirements shall be a violation of this Division.

(1) *Procedures for Establishing Special Alternative Limits.* In determining a SAL, the City Director shall allocate a share of the maximum allowable industrial loading for the pollutant of concern as set forth in Paragraph (2) of this Subsection among one or more non-domestic users in amounts and on terms and conditions deemed appropriate by the City Director.

(2) *Maximum Allowable Industrial Loadings.* The total mass of a pollutant of concern used by or allocated to all non-domestic users, including mass allocated by the City Director in establishing SALs for the pollutant, shall not exceed in the aggregate for all non-domestic users the maximum allowable industrial loadings described in Table 46-146(d)2 in the Appendix at the end of this Division.

(e) *Local Initiative Limits.* The City Director may impose limits on a user for pollutants not specifically listed in Table 46-146(c) in the Appendix at the end of this Division, which may be in a use permit or in an order. In determining a local initiative limit (LIL), the City Director shall consider available data on acceptable POTW pollutant loading based on POTW design, treatability of the pollutant, the potential for pass-through or interference, current POTW pollutant loading, the properties of the pollutant, and other relevant factors deemed appropriate by the City Director. The City Director may also establish generally applicable LILs by rulemaking. A generally applicable LIL may be established and shall be enforceable as a discharge prohibition, provided the City Director first publishes notice of the proposed LILs in the newspaper in the City with the largest circulation, provides written notice to users who are known to the City Director to discharge a significant mass or concentration of the pollutant, and provides for an opportunity to interested persons to submit written comments. If significant public comments are received, the City Director shall hold a public hearing to take additional oral and written comments. After these procedures are completed, the City Director shall publish the final enforceable LILs in the same newspaper along with the effective date of the LILs.

(f) *Categorical Pretreatment Standards.* A user shall comply with all Categorical Pretreatment Standards and any other pretreatment requirements, established under 307(B), 307(C), or 402(B)(8) of the Act that are applicable to that user, as adjusted under the Combined Wastestream Formula in Michigan Rule R 323.2311(7). If a Categorical Pretreatment Standard and another limit contained in this Division or in an applicable State of Michigan pretreatment requirement regulate the same pollutant, then the more restrictive of them shall apply. If a user requests that a removal credit be applicable to that user, then such user shall pay all costs associated with supporting, obtaining, and administering the removal credit so that the City incurs no costs. It shall be at the sole discretion of the City whether or not a removal credit shall be established and how a removal credit shall be allocated.

(g) *Trucked Wastes.* No wastes or wastewater shall be discharged by any user or person into the POTW from a vehicle which transported the waste or wastewater to the point of discharge. The preceding sentence does not prohibit a user from trucking wastes or wastewater to the user's treatment facility.

(h) *Future Conditions.* Future conditions imposed on the City by government agencies with proper jurisdiction may require subsequent amendment of this Division by the City. Where federal- or state-promulgated pretreatment standards require limits on parameters not covered in this Division or limits more stringent than those specified in the Division, the state or federal limits shall have precedence and take effect with respect to the applicable user on the later of their promulgation date or the date specified for compliance with such standards.

(i) *Reserved Right of Revision.* The City reserves the right to establish by ordinance, rule, order, or use permit more stringent limitations or requirements on discharges to the POTW.

§ 46-147 DILUTION.

No user shall increase the use of potable or process water or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment before discharge to the POTW to achieve compliance with the standards set forth in this Division, except upon prior written approval from the City Director. Such approval shall be granted at the sole discretion of the City Director and consistent with federal and state law.

Appendix

Table 46-146(c) Pollutant Concentration Limits
Table 46-146(d)(2) Maximum Allowable Industrial Loadings

Table 46-146(c)

Pollutant Concentration Limits		
Pollutant	Instantaneous Concentration Limits	Daily Concentration Limits
Biochemical Oxygen Demand		427 mg/L
Hexane-Extractable Material		100 mg/L
Ammonia-Nitrogen		37 mg/L
Total Phosphorus		7 mg/L
Total Suspended Solids		305 mg/L
Total Arsenic		12 ug/L
Total Cadmium		14 ug/L
Total Chromium		48 ug/L
Hexavalent Chromium		5 ug/L
Total Copper		179 ug/L
Available Cyanide	1,195 ug/L	5 ug/L
Total Lead		107 ug/L
Total Mercury		0.012[1] ug/L
Total Nickel		43 ug/L
Total Silver		23 ug/L
Total Zinc		445 ug/L
Total PCB		0.00020[2] ug/L
Benzene	174 ug/L	1 ug/L
Toluene	1,753 ug/L	187 ug/L
Ethylbenzene	2,048 ug/L	1 ug/L
Total Xylenes	2,009 ug/L	2 ug/L

[1] Mercury sample collection, preservation, and handling procedures and analytical protocol for compliance monitoring shall be in accordance with us EPA Method 245.1 or 245.2 or Method 1631, as determined by the City Director. Whenever the quantification level is less than or equal to the discharge limit, the discharge limit shall apply directly. However, whenever the quantification level is above the discharge limit, the discharge of mercury at or above the quantification level shall represent an exceedance of the limit. The quantification level under Methods 245.1 and 245.2 shall be 0.2 ug/L, unless a higher level is appropriate due to matrix interference. If the concentration of the discharge sample is less than the quantification level when Method 245.1 or 245.2 are applicable, the user shall be considered to be in compliance with the mercury limit for the period that the sample represents, provided that the user is also in full compliance with any mercury minimization requirements applicable to that user. The quantification level under Method 1631 shall be 0.5 ng/L, unless a higher level is appropriate due to matrix interference. Justification for higher quantification levels shall be submitted to the City Director within 30 days of such determination. This footnote does not authorize the discharge of mercury at levels which interfere with the POTW or which constitute a threat to public health, welfare, or the waters of the state. [2] Total PCB shall be defined as the sum of the concentrations of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260. In addition, any detected Aroclor-specific measurements shall be reported. Total PCB sample collection, preservation and handling procedures and analytical protocol for compliance monitoring shall be in accordance with US EPA Method 608. The quantification level shall not exceed 0.2 ug/L, unless a higher level is appropriate due to sample matrix interference. Whenever the quantification level is less than or equal to the discharge limit, the discharge limit shall apply directly; however, whenever the quantification level is above the discharge limit, the discharge of Total PCB at or above the quantification level shall represent an exceedance of the limit. If the concentration of the discharge sample is less than the quantification level, the user shall be considered to be in compliance with the Total PCB limit for the period that the sample represents, provided that the user is also in full compliance with any Total PCB minimization requirements applicable to that user. Any Aroclor analytical result which is less than the quantification level shall be considered as a zero in the summation of the Aroclor results for the sample. This footnote does not authorize the discharge of total PCB at levels which interfere with the POTW or which constitute a threat to public health, welfare or the waters of the state.

Table 46-146(d)(2)

Maximum Allowable Industrial Loadings	
Pollutant	Maximum Allowable Industrial Loading
Biochemical Oxygen Demand	79,216 Pounds/Day
Hexane-Extractable Material	17,589 Pounds/Day
Ammonia Nitrogen	3,762 Pounds/Day
Total Phosphorus	522 Pounds/Day
Total Suspended Solids	45,636 Pounds/Day
Total Arsenic	5.29 Pounds/Day
Total Cadmium	4.12 Pounds/Day
Total Chromium	162 Pounds/Day
Hexavalent Chromium	7.18 Pounds/Day
Total Copper	39.4 Pounds/Day
Available Cyanide	2.66 Pounds/Day
Total Lead	28.7 Pounds/Day
Total Mercury	0.000229 Pounds/Day
Total Nickel	34.7 Pounds/Day
Total Silver	3.90 Pounds/Day
Total Zinc	84.8 Pounds/Day
Total PCB	0.00000390 Pounds/Day
Benzene	148 Pounds/Day
Toluene	205 Pounds/Day
Ethylbenzene	31.7 Pounds/Day
Total Xylenes	43.0 Pounds/Day

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Abate	3383-96-8				Yes
Acenaphthene	83-32-9		Yes		
Acenaphthylene	208-96-8		Yes		
Acetaldehyde	75-07-0	Yes			Yes
Acetic Acid	64-19-7	Yes			Yes
Acetic Anhydride	108-24-7	Yes			
Acetone Cyanohydrin	75-86-5	Yes			
2-Acetylaminofluorene	53-96-3				Yes
Acetyl Bromide	506-96-7	Yes			
Acetyl Chloride	75-36-5	Yes			
Acetylene Tetrabromide	79-27-6				Yes
Acrolein	107-02-8	Yes	Yes		Yes
Acryamide	79-06-1				Yes
Acrylonitrile	107-13-1	Yes	Yes		Yes
Adipic Acid	124-04-9	Yes			
Aldrin	309-00-2	Yes	Yes	Yes	Yes
Allyl Alcohol	107-18-6	Yes			Yes
Allyl Chloride	107-05-1	Yes			Yes
Allyl Glycidyl Ether (AGE)	106-92-3				Yes
Allyl Propyl Disulfide	2179-59-1				Yes
Alpha-BHC	319-84-6		Yes		
Aluminum Sulfate	10043-01-3	Yes			
4-Aminobiphenyl	92-67-1				Yes
Amitrole	61-82-5				Yes
Ammonia	7664-41-7	Yes			Yes
Ammonium Acetate	631-61-8	Yes			
Ammonium Benzoate	1863-63-4	Yes			
Ammonium Bicarbonate	1066-33-7	Yes			
Ammonium Bichromate	7789-09-5	Yes			
Ammonium Bifluoride	1341-49-7	Yes			
Ammonium Bisulfite	10192-30-0	Yes			
Ammonium Carbamate	1111-78-0	Yes			
Ammonium Carbonate	506-87-6	Yes			
Ammonium Chloride	12125-02-9	Yes			Yes
Ammonium Chromate	7788-98-9	Yes			
Ammonium Citrate, Dibasic	3012-65-5	Yes			
Ammonium Fluoborate	13826-83-0	Yes			
Ammonium Fluoride	12125-01-8	Yes			
Ammonium Hydroxide	1336-21-6	Yes			
Ammonium Oxalate	6009-70-7	Yes			
Ammonium Silicofluoride	16919-19-0	Yes			
Ammonium Sulfamate	7773-06-0	Yes			Yes
Ammonium Sulfide	12135-76-1	Yes			
Ammonium Sulfite	10196-04-0	Yes			
Ammonium Tartrate	3164-29-2	Yes			
Ammonium Thiocyanate	1762-95-4	Yes			
Amyl Acetate	628-63-7	Yes			Yes
sec-Amyl Acetate	626-38-0				Yes
Aniline	62-53-3	Yes			Yes
Anisidine (o and p Isomers)	29191-52-4				Yes
Anthracene	120-9-7		Yes		
Antimony (and all compounds)	7440-36-0		Yes		
Antimony Pentachloride	7647-18-9	Yes	Yes		
Antimony Pentafluoride	7783-70-2		Yes		
Antimony Potassium Tartrate	28300-74-5	Yes	Yes		
Antimony Tribromide	7789-61-9	Yes	Yes		
Antimony Trichloride	10025-91-9	Yes	Yes		
Antimony Trifluoride	7783-56-4	Yes	Yes		
Antimony Trioxide	1309-64-4	Yes	Yes		

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Arsenic (and all compounds)	7440-38-2		Yes	Yes	Yes
Arsenic Acid	7778-39-4		Yes	Yes	Yes
Arsenic Disulfide	1303-32-8	Yes	Yes	Yes	Yes
Arsenic Pentoxide	1303-28-2	Yes	Yes	Yes	Yes
Arsenic Trioxide	1327-53-3	Yes	Yes	Yes	Yes
Arsenic Trisulfide	1303-33-9	Yes	Yes	Yes	Yes
Arsenous Trichloride	7784-34-1	Yes	Yes	Yes	Yes
Arsine	7784-42-1		Yes	Yes	Yes
Asbestos (friable)	1332-21-4		Yes		Yes
Atrazine	1912-24-9				Yes
Azinphos-Ethyl	2642-71-9				Yes
Azinphos-Methyl	86-50-0	Yes			
Barium Cyanide	542-62-1	Yes			
Benomyl	17804-35-2				Yes
Benz[A]Anthracene	56-55-3		Yes	Yes	
Benzene	71-43-2	Yes	Yes	Yes	Yes
Benzidine	92-87-5		Yes		Yes
3,4-Benzofluoranthene	205-99-2		Yes		
Benzo(GHI)Perylene (1,12-Benzoperylene)	191-24-2		Yes		
Benzo(K)Fluoranthene (11,12-Benzofluoranthene)	207-08-9		Yes		
Benzoic Acid	65-85-0	Yes			
Benzonitrile	100-47-0	Yes			
Benzoyl Chloride	98-88-4	Yes			
Benzoyl Peroxide	94-36-0				Yes
Benzo[A]Pyrene	50-32-8		Yes	Yes	Yes
p-Benzoquinone	106-51-4				Yes
Benzyl Chloride	100-44-7	Yes			Yes
Beryllium (and all compounds)	7440-41-7		Yes	Yes	Yes
Beryllium Chloride	7787-47-5	Yes	Yes	Yes	Yes
Beryllium Fluoride	7787-49-7	Yes	Yes	Yes	Yes
Beryllium Nitrate	13597-99-4	Yes	Yes	Yes	Yes
Beta-Bhc	319-85-7		Yes		
Biphenyl	92-52-4				Yes
Bis(2-Chloro-1-Methylethyl)Ether	108-60-1		Yes		
Bis(2-Chloroethoxy)Methane	111-91-1		Yes		
Bis(2-Chloroethyl)Ether	111-44-4		Yes		Yes
Bis(2-Ethylhexyl)Phthalate	117-81-7		Yes		Yes
Boron Trifluoride	7637-07-2				Yes
Bromacil	314-40-9				Yes
Bromine	7726-95-6				Yes
Bromine Pentafluoride	7789-30-2				Yes
4-Bromophenyl Phenyl Ether	101-55-3		Yes	Yes	
1,3-Butadiene	106-99-0		Yes		Yes
Butane	106-97-8				Yes
2,6-Di-tert-Butyl-p-Cresol	128-37-0				Yes
Butyl Acetate	123-86-4	Yes			Yes
Butyl Acrylate	141-32-2				Yes
Butyl Benzyl Phthalate	85-68-7		Yes		
Butyl Mercaptan	109-79-5				Yes
Butylamine	109-73-9	Yes			Yes
Di-n-Butyl Phthalate	84-74-2		Yes		Yes
n-Butyl Glycidyl Ether (BGE)	2426-08-6				Yes
n-Butyl Lactate	138-22-7				Yes
o-sec-Butylphenol	89-72-5				Yes
p-tert-Butyltoluene	98-51-1				Yes
sec-Butyl Acetate	105-46-4				Yes
sec-Butyl Alcohol	78-92-2				Yes
tert-Butyl Acetate	540-88-5				Yes
tert-Butyl Chromate	1189-85-1				Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Butyric Acid	107-92-6	Yes			
Cadmium (and all compounds)	7440-43-9		Yes	Yes	
Cadmium Acetate	543-90-8	Yes	Yes	Yes	
Cadmium Bromide	7789-42-6	Yes	Yes	Yes	
Cadmium Chloride	10108-64-2	Yes	Yes		Yes
Cadmium Oxide	1306-19-0		Yes	Yes	
Cadmium Stearate	2223-93-0		Yes	Yes	
Calcium Arsenate	7778-44-1	Yes			
Calcium Arsenite	52740-16-6	Yes			
Calcium Carbide	75-20-7	Yes			
Calcium Chromate	13765-19-0	Yes			
Calcium Cyanamide	156-62-7				Yes
Calcium Cyanide	592-01-8	Yes	Yes		
Calcium Dodecylbenzenesulfonate	26264-06-2	Yes			
Calcium Hypochlorite	7778-54-3	Yes			
Camphor, Synthetic	76-22-2				Yes
Caprolactam	105-60-2				Yes
Captafol	2425-06-1				Yes
Captan	133-06-2	Yes			Yes
Carbaryl	63-25-2	Yes			Yes
Carbofuran	1563-66-2	Yes			Yes
Carbon Disulfide	75-15-0	Yes			Yes
Carbon Tetrabromide	558-13-4				Yes
Carbon Tetrachloride	56-23-5	Yes	Yes		Yes
Catechol	120-80-9				Yes
1-Chloro-1-Nitropropane	600-25-9				Yes
2-Chloroacetophenone	532-27-4				Yes
2-Chloroethyl Vinyl Ether (mixed)	110-75-8		Yes		
2-Chloronaphthalene	91-58-7		Yes		
2-Chlorophenol	95-57-8		Yes		
4-Chlorophenyl Phenyl Ether	7005-72-3		Yes		
Chlordane	57-74-9	Yes	Yes	Yes	Yes
Chlorinated Diphenyl Oxide	55720-99-5				Yes
Chlorine	7782-50-5	Yes			Yes
Chlorine Dioxide	10049-04-4				Yes
Chlorine Trifluoride	7790-91-2				Yes
Chloroacetyl Chloride	79-04-9				Yes
Chlorobenzene	108-90-7	Yes	Yes	Yes	Yes
Chlorobromomethane	74-97-5				Yes
Chlorodibromomethane	124-48-1		Yes		
Chlorodifluoromethane	75-45-6				Yes
Chloroethane	75-00-3		Yes		Yes
Chloroform	67-66-3	Yes	Yes	Yes	Yes
Chloromethyl Methyl Ether	107-30-2				Yes
Chloropicrin	76-06-2				Yes
Chloroprene	126-99-8				Yes
Chlorosulfonic Acid	7790-94-5	Yes			
Chlorpyrifos	2921-88-2	Yes			Yes
o-Chlorobenzylidene Malononitrile	2698-41-1				Yes
o-Chlorostyrene	2039-87-4				Yes
o-Chlorotoluene	95-49-8				Yes
p-Chloro-m-Cresol	59-50-7		Yes		
Chromic Acetate	1066-30-4	Yes	Yes	Yes	
Chromic Acid	11115-74-5	Yes	Yes	Yes	
Chromic Chloride	10025-73-7		Yes	Yes	
Chromic Sulfate	10101-53-8	Yes	Yes	Yes	
Chromium (and all compounds)	7440-47-3		Yes	Yes	
Chromium (VI)	1333-82-0		Yes	Yes	
Chromous Chloride	10049-05-5	Yes	Yes	Yes	

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Chrysene	218-01-9		Yes		
Coal Tar Pitch Volatiles	65996-93-2				Yes
Cobalt Carbonyl	10210-68-1				Yes
Cobalt Hydrocarbonyl (as Co)	16842-03-8				Yes
Cobaltous Bromide	7789-43-7	Yes			
Cobaltous Formate	544-18-3	Yes			
Cobaltous Sulfamate	14017-41-5	Yes			
Copper (and all compounds)	7440-50-8		Yes	Yes	
Copper Cyanide	544-92-3		Yes	Yes	Yes
Coumaphos	56-72-4	Yes			
Cresol	1319-77-3	Yes			Yes
Crotonaldehyde	4170-30-3	Yes			Yes
Crotonaldehyde(E)	123-73-9				Yes
Crufomate	299-86-5				Yes
Cumene	98-82-8				Yes
Cupric Acetate	142-71-2	Yes	Yes		
Cupric Acetoarsenite	12002-03-8	Yes	Yes	Yes	
Cupric Chloride	7447-39-4	Yes	Yes	Yes	
Cupric Nitrate	3251-23-8	Yes	Yes	Yes	
Cupric Oxalate	5893-66-3	Yes	Yes	Yes	
Cupric Sulfate	7758-98-7	Yes	Yes	Yes	
Cupric Sulfate, Ammoniated	10380-29-7	Yes	Yes	Yes	
Cupric Tartrate	815-82-7	Yes	Yes	Yes	
Cyanide Compounds			Yes		Yes
Cyanogen	460-19-5				Yes
Cyanogen Chloride	506-77-4				Yes
Cyclohexane	110-82-7	Yes			Yes
Cyclohexanol	108-93-0				Yes
Cyclohexanone	108-94-1				Yes
Cyclohexene	110-83-8				Yes
Cyclohexylamine	108-91-8				Yes
Cyclonite	121-82-4				Yes
Cyclopentadiene	542-92-7				Yes
Cyclopentane	287-92-3				Yes
Cyhexatin	13121-70-5				Yes
2,4-Diclorophenoxy Actic Acid (2,4-D)	94-75-7	Yes			Yes
4,4'-DDE (P,P'-DDE)	72-55-9		Yes	Yes	
DDT (P,P',O,P' And Technical Grade)	50-29-3	Yes	Yes	Yes	Yes
Decaborane(14)	17702-41-9				Yes
Delta-BHC	319-86-8		Yes		
Demeton	8065-48-3				Yes
Diazinon	333-41-5	Yes			Yes
Diazomethane	334-88-3				Yes
Dibenz(A,H)Anthracene	53-70-3		Yes	Yes	
Diborane	19287-45-7				Yes
1,2-Dibromoethane	106-93-4	Yes			Yes
2-n-Dibutylaminoethanol	102-81-8				Yes
Dibutyl Phosphate	107-66-4				Yes
Dicamba	1918-00-9	Yes			
1,1-Dichloro-1-Nitroethane	594-72-9				Yes
1,1-Dichloroethane	75-34-3		Yes		Yes
1,1-Dichloroethylene	75-35-4	Yes	Yes	Yes	Yes
1,2-Dichlorobenzene	95-50-1		Yes		Yes
1,2-Dichloroethane	107-06-2	Yes	Yes	Yes	
1,2-Dichloroethylene	156-60-5		Yes		Yes
1,2-Dichloropropane	78-87-5		Yes		Yes
1,3-Dichloro-5,5-Dimethyl Hydantoin	118-52-5				Yes
1,3-Dichlorobenzene	541-73-1		Yes	Yes	
1,3-Dichloropropylene (1,3-Dichloropropene)	542-75-6		Yes		Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
1,4-Dichlorobenzene	106-46-7		Yes	Yes	Yes
2,2-Dichloropropionic Acid	75-99-0	Yes			Yes
2,4-Dichlorophenol	120-83-2		Yes		
2,4-Dichlorophenoxyacetic Acid (2,4-D) Esters	94-11-1	Yes			
3,3-Dichlorobenzidine	91-94-1		Yes	Yes	Yes
Dichlobenil	1194-65-6	Yes			
Dichlone	117-80-6	Yes			
Dichloroacetylene	7572-29-4				Yes
Dichlorobenzene	25321-22-6	Yes			
Dichlorobromomethane	75-27-4		Yes		
Dichlorodifluoromethane (CFC-12)	75-71-8				Yes
Dichloromethyl Ether	542-88-1				Yes
Dichloromonofluoromethane	75-43-4				Yes
Dichloropropane	26638-19-7	Yes			
Dichloropropene	26952-23-8	Yes			
Dichloropropene - Dichloropropane (mixture)	8003-19-8	Yes			
Dichlorotetrafluoroethane (CFC-114)	76-14-2				Yes
Dichlorovos	62-73-7	Yes			Yes
Dicofol	115-32-2	Yes			
Dicrotophos	141-66-2				Yes
Dicyclopentadiene	77-73-6				Yes
Dieldrin	60-57-1	Yes	Yes	Yes	Yes
Diethanolamine	111-42-2				Yes
Diethyl Phthalte	84-66-2		Yes		Yes
Diethylamine	109-89-7	Yes			Yes
o,o-Diethyl o-Pyrazinyl Phosphorothioate	297-97-2		Yes		
Difluorodibromomethane	75-61-6				Yes
Diglycidyl Ether	2238-07-5				Yes
Diisobutyl Ketone	108-83-8				Yes
Diisopropylamine	108-18-9				Yes
2,4-Dimethylphenol	105-67-9		Yes		
4-Dimethylaminoazobenzene	60-11-7				Yes
Dimethyl Phthalate	131-11-3		Yes		Yes
Dimethyl Sulfate	77-78-1				Yes
Dimethylamine	124-40-3	Yes			Yes
n,n-Dimethylaniline	121-69-7				Yes
2,4-Dinitrophenol	51-28-5	Yes	Yes		
2,4-Dinitrotoluene	121-14-2		Yes		
4,6-Dinitro-o-Cresol	534-52-1		Yes		Yes
Dinitolmide (3,5-Dinitro-o-Toluamide)	148-01-6				Yes
Dinitrobenzene (mixed isomers)	25154-54-5	Yes			
Dinitrophenol	25550-58-7	Yes			
Dinitrotoluene (mixed isomers)	25321-14-6		Yes		Yes
m-Dinitrobenzene	99-65-0				Yes
o-Dinitrobenzene	528-29-0				Yes
p-Dinitrobenzene	100-25-4				Yes
Dioxathion	78-34-2				Yes
1,2-Diphenylhydrazine	122-66-7		Yes		
Diphenylamine	122-39-4				Yes
Dipropyl Ketone	123-19-3				Yes
Diquat	85-00-7	Yes			Yes
Disulfiram	97-77-8				Yes
Disulfoton	298-04-4	Yes			Yes
Diuron	330-54-1	Yes			Yes
Divinyl Benzene	1321-74-0				Yes
Dodecylbenzenesulfonic Acid	27176-87-0	Yes			
Endosulfan	115-29-7	Yes	Yes		Yes
Endosulfan Sulfate	1031-07-8		Yes		
Endrin	72-20-8	Yes	Yes	Yes	Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Endrin Aldehyde	7421-93-4		Yes		
Epichlorohydrin	106-89-8	Yes			Yes
EPN	2104-64-5				Yes
Ethion	563-12-2	Yes			Yes
2-Ethoxyethyl Acetate (Cellosolve Acetate)	111-15-9				Yes
Ethyl Acetate	141-78-6				Yes
Ethyl Acrylate	140-88-5				Yes
Ethyl Amyl Ketone (5-Methyl-3-Heptanone)	541-85-5				Yes
Ethyl Bromide	74-96-4				Yes
Ethyl Butyl Ketone (3-Heptanone)	106-35-4				Yes
Ethyl Ether	60-29-7				Yes
Ethyl Formate	109-94-4				Yes
Ethyl Mercaptan	75-08-1				Yes
Ethyl Silicate	78-10-4				Yes
Ethylbenzene	100-41-4	Yes	Yes		Yes
Ethylene Glycol Dinitrate	628-96-6				Yes
Ethylenediamine	107-15-3	Yes			Yes
Ethylenediamine-Tetraacetic Acid (EDTA)	60-00-4	Yes			
Ethylidene Norbornene	16219-75-3				Yes
Fenamiphos	22224-92-6				Yes
Fensulfothion	115-90-2				Yes
Fenthion	55-38-9				Yes
Ferric Ammonium Citrate	1185-57-5	Yes			
Ferric Ammonium Oxalate	2944-67-4	Yes			
Ferric Ammonium Oxalate	55488-87-4	Yes			
Ferric Chloride	7705-08-0	Yes			
Ferric Fluoride	7783-50-8	Yes			
Ferric Nitrate	10421-48-4	Yes			
Ferric Sulfate	10028-22-5	Yes			
Ferrous Ammonium Sulfate	10045-89-3	Yes			
Ferrous Chloride	7758-94-3	Yes			
Ferrous Sulfate	7720-78-7	Yes			
Fluoranthene	206-44-0		Yes		
Fluorene	86-73-7		Yes		
Fluorine	7782-41-4				Yes
Fonofos	944-22-9				Yes
Formaldehyde	50-00-0	Yes			
Fumaric Acid	110-17-8	Yes			
Furfural	98-01-1	Yes			Yes
Gasoline	8006-61-9				Yes
Germanium Tetrahydride	7782-65-2				Yes
Heptachlor	76-44-8	Yes	Yes	Yes	Yes
Heptachlor Epoxide	1024-57-3		Yes	Yes	
Hexachlorobenzene	118-71-1		Yes	Yes	
Hexachlorobutadiene	87-68-3		Yes	Yes	Yes
Hexachlorocyclohexane	608-73-1		Yes	Yes	
Hexachlorocyclopentadiene	77-47-4	Yes	Yes		Yes
Hexachloroethane	67-72-1		Yes	Yes	Yes
Hexachloronaphthalene	1335-87-1				Yes
Hexane	110-54-3				Yes
Hydrochloric Acid	7647-01-0	Yes			Yes
Hydrogen Cyanide	74-90-8	Yes			Yes
Hydrogen Fluoride	7664-39-3	Yes			Yes
Hydrogen Selenide	7783-07-5				Yes
Hydrogen Sulfide	7783-06-4	Yes			Yes
Hydroquinone	123-31-9				Yes
Ideno(1,2,3-CD)Pyrene (2,3-o-Phenylenepyrene)	193-39-5		Yes		
Iron, Pentacarbonyl-	13463-40-6				Yes
Iso-Amyl Acetate	123-92-2				Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Iso-Butyl Acetate	110-19-0				Yes
Isobutanol	78-83-1				Yes
Isophorone	78-59-1		Yes		Yes
Isophorone Diisocyanate	4098-71-9				Yes
Isoprene	78-79-5	Yes			
Isopropanolamine Dodecylbenzene Sulfonate	42504-46-1	Yes			
Kepone	143-50-0	Yes			
Lead (and all compounds)	7439-92-1		Yes	Yes	
Lead Acetate	301-04-2	Yes			
Lead Arsenate	3687-31-8	Yes			
Lead Chloride	7758-95-4	Yes			
Lead Fluoborate	13814-96-5	Yes			
Lead Fluoride	7783-46-2	Yes			
Lead Iodide	10101-63-0	Yes			
Lead Nitrate	10099-74-8	Yes			
Lead Stearate	1072-35-1	Yes			
Lead Sulfate	7446-14-2	Yes			
Lead Sulfide	1314-87-0	Yes			
Lead Thiocyanate	592-87-0	Yes			
Lindane	58-89-9	Yes	Yes		Yes
Lithium Chromate	14307-35-8	Yes			
Lithium Hydride	7580-67-8				Yes
Malathion	121-75-5	Yes			
Maleic Acid	110-16-7	Yes			
Maleic Anhydride	108-31-6	Yes			
Manganese	7439-96-5				Yes
Manganese, Tricarbonyl Methylcyclopentadienyl	12108-13-3				Yes
MBOCA	101-14-4			Yes	
Mercaptodimethur	2032-65-7	Yes			
Mercuric Acetate	1600-27-7		Yes	Yes	Yes
Mercuric Chloride	7487-94-7		Yes	Yes	Yes
Mercuric Cyanide	592-04-1	Yes	Yes	Yes	Yes
Mercuric Nitrate	10045-94-0	Yes	Yes	Yes	Yes
Mercuric Oxide	21908-53-2		Yes	Yes	Yes
Mercuric Sulfate	7783-35-9	Yes	Yes	Yes	Yes
Mercuric Thiocyanate	592-85-8	Yes	Yes	Yes	Yes
Mercurous Nitrate	7782-86-7	Yes	Yes	Yes	Yes
Mercury (and all compounds)	7439-97-6		Yes	Yes	Yes
Mercury Fulminate	628-86-4		Yes	Yes	Yes
Methacrylonitrile	126-98-7				Yes
Methomyl	16752-77-5				Yes
Methoxychlor	72-43-5	Yes		Yes	Yes
Methyl Acrylate	96-33-3				Yes
Methyl Bromide (Bromomethane)	74-83-9		Yes		Yes
Methyl Chloride (Chloromethane)	74-87-3		Yes		Yes
Methyl Ethyl Ketone	78-93-3				Yes
Methyl Ethyl Ketone Peroxide	1338-23-4				Yes
Methyl Iodide	74-88-4				Yes
Methyl Isobutyl Ketone	108-10-1				Yes
Methyl Isocyanate	624-83-9				Yes
Methyl Mercaptan	74-93-1	Yes			Yes
Methyl Methacrylate	80-62-6	Yes			
Methyl Parathion	298-00-0	Yes			Yes
Methylene Chloride (Dichloromethane)	75-09-2		Yes	Yes	Yes
Methylenebis (Phenylisocyanate)	101-68-8				Yes
Mevinphos	7786-34-7	Yes			Yes
Mexacarbate	315-18-4	Yes			
Mirex	2385-85-5		Yes	Yes	
Monochloropentafluoroethane (CFC-115)	76-15-3				Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Monoethylamine	75-04-7	Yes			Yes
Monomethylamine	74-89-5	Yes			Yes
Naled	300-76-5	Yes			Yes
1-Naphthylamine	134-32-7				Yes
Naphthalene	91-20-3	Yes	Yes		Yes
Naphthenic Acid	1338-24-5	Yes			
Vm & P Naphtha	8032-32-4				Yes
Nickel (and all compounds)	7440-02-0		Yes	Yes	
Nickel Ammonium Sulfate	15699-18-0	Yes	Yes	Yes	Yes
Nickel Carbonyl	13463-39-3		Yes	Yes	Yes
Nickel Chloride	7718-54-9	Yes	Yes	Yes	
Nickel Cyanide	557-19-7		Yes	Yes	
Nickel Hydroxide	12054-48-7	Yes	Yes	Yes	
Nickel Nitrate	14216-75-2	Yes	Yes	Yes	
Nickel Sulfate	7786-81-4	Yes	Yes	Yes	
Nitric Acid	7697-37-2	Yes			Yes
Nitric Oxide	10102-43-9				Yes
1-Nitropropane	108-03-2				Yes
2-Nitrophenol	88-75-5		Yes		
2-Nitropropane	79-46-9				Yes
4-Nitrobiphenyl	92-93-3				Yes
4-Nitrophenol	100-02-7	Yes	Yes		
m-Nitrotoluene	99-08-1	Yes			Yes
n-Nitrosodimethylamine	62-75-9		Yes		Yes
n-Nitrosodiphenylamine	86-30-6		Yes		
Nitrobenzene	98-95-3	Yes	Yes		Yes
Nitroethane	79-24-3				Yes
Nitrogen Dioxide	10102-44-0	Yes			Yes
Nitrogen Trifluoride	7783-54-2				Yes
Nitroglycerin	55-63-0				Yes
Nitromethane	75-52-5				Yes
Nitrophenol (mixed isomers)	25154-55-6	Yes			
Nitrotoluene	1321-12-6	Yes			
p-Nitroaniline	100-01-6				Yes
p-Nitrochlorobenzene	100-00-5				Yes
p-Nitrotoluene	99-99-0				Yes
Nonane	111-84-2				Yes
Octachloronaphthalene	2234-13-1				Yes
Octachlorostyrene	29082-74-7		Yes	Yes	
Octane	111-65-9				Yes
Di-n-Octyl Phthalate	117-84-0		Yes	Yes	
Osmium Tetroxide	20816-12-0				Yes
Oxalic Acid	144-62-7				Yes
Oxygen Difluoride	7783-41-7				Yes
Ozone	10028-15-6				Yes
Paraformaldehyde	30525-89-4	Yes			
Parathion	56-38-2	Yes			Yes
2-Pentanone (Methyl Propyl Ketone)	107-87-9				Yes
Pentaborane	19624-22-7				Yes
Pentachloronaphthalene	1321-64-8				Yes
Pentachlorophenol	87-86-5	Yes	Yes	Yes	Yes
Pentane	109-66-0				Yes
Perchloryl Fluoride	7616-94-6				Yes
Petroleum Distillates (Naphta)	8030-30-6				Yes
Phenanthrene	85-01-8		Yes		
Phenol	108-95-2	Yes	Yes		Yes
Phenothiazine	92-84-2				Yes
p-Phenylenediamine	106-50-3				Yes
Phenyl Ether	101-84-8				Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Phenyl Ether-Biphenyl Mixture					Yes
Phenyl Glycidyl Ether (PGE)	122-60-1				Yes
Phenylhydrazine	100-63-0				Yes
Phenylphosphine	638-21-1				Yes
Phorate	298-02-2				Yes
Phosgene	75-44-5	Yes			Yes
Phosphine	7803-51-2				Yes
Phosphoric Acid	7664-38-2	Yes			
Phosphorus	7723-14-0	Yes			Yes
Phosphorus Oxychloride	10025-87-3	Yes			Yes
Phosphorus Pentachloride	10026-13-8				Yes
Phosphorus Trichloride	7719-12-2	Yes			Yes
m-Phthalodinitrile	626-17-5				Yes
Picric Acid	88-89-1				Yes
Pindone (2-Pivalyl-1,3-Indandione)	83-26-1				Yes
Piperazine Dihydrochloride	142-64-3				Yes
Polybrominated Biphenyls (PBB)	67774-32-7			Yes	
Polychlorinated Biphenyls (PCB)	1336-36-3	Yes	Yes	Yes	
Polychlorinated Naphthalenes	CLASS-06-6			Yes	
Potassium Arsenite	10124-50-2	Yes	Yes	Yes	Yes
Potassium Bichromate	7778-50-9	Yes	Yes	Yes	
Potassium Chromate	7789-00-6	Yes	Yes	Yes	
Potassium Cyanide	151-50-8	Yes	Yes		
Potassium Hydroxide	1310-58-3	Yes			
Potassium Permanganate	7722-64-7	Yes			
Propane	74-98-6				Yes
Propargite	2312-35-8	Yes			
Propargyl Alcohol	107-19-7				Yes
Beta-Propiolactone	57-57-8				Yes
Propionic Acid	79-09-4	Yes			Yes
Propionic Anhydride	123-62-6	Yes			
Propoxur	114-26-1				Yes
Di-n-Propylnitrosamine	621-64-7		Yes		
n-Propyl Acetate	109-60-4				Yes
n-Propyl Nitrate	627-13-4				Yes
Propylene Glycol Dinitrate	6423-43-4				Yes
Propylene Glycol Monomethyl Ether	107-98-2				Yes
Propylene Oxide	75-56-9	Yes			Yes
Pyrene	129-00-0		Yes		
Pyrethrins	8003-34-7	Yes			Yes
Quinoline	91-22-5	Yes			
Resorcinol	108-46-3	Yes			Yes
Ronnel	299-84-3				Yes
Rotenone	83-79-4				Yes
Selenium (and all compounds)	7782-49-2		Yes	Yes	Yes
Selenium Hexaflouride	7783-79-1		Yes	Yes	Yes
Selenium Oxide	7446-08-4	Yes	Yes	Yes	Yes
Selenium Oxychloride	7791-23-3		Yes	Yes	Yes
Selenium Sulfide	7488-56-4		Yes	Yes	Yes
Silicon Tetrahydride	7803-62-5				Yes
Silver (all compounds)	7440-22-4		Yes	Yes	
Silver Cyanide	506-64-9		Yes	Yes	Yes
Silver Nitrate	7761-88-8	Yes	Yes	Yes	Yes
Silvex (2,4,5-Trichloropropionic Acid; 2,4,5-TP)	93-72-1	Yes			
Silvex Esters (2,4,5-TP Esters)	32534-95-5	Yes			
Sodium	7440-23-5	Yes			
Sodium Arsenate	7631-89-2	Yes	Yes	Yes	Yes
Sodium Arsenite	7784-46-5	Yes	Yes	Yes	Yes
Sodium Bichromate	10588-01-9	Yes	Yes	Yes	

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Sodium Bifluoride	1333-83-1	Yes			
Sodium Bisulfite	7631-90-5	Yes			
Sodium Chromate	7775-11-3	Yes	Yes	Yes	
Sodium Cyanide (Na(Cn))	143-33-9	Yes	Yes		
Sodium Dodecylbenzenesulfonate	25155-30-0	Yes			
Sodium Fluoride	7681-49-4	Yes			
Sodium Hydrosulfide	16721-80-5	Yes			
Sodium Hydroxide	1310-73-2	Yes			
Sodium Hypochlorite	7681-52-9	Yes			
Sodium Hypochlorite	10022-70-5	Yes			
Sodium Methylate	124-41-4	Yes			
Sodium Nitrite	7632-00-0	Yes			
Sodium Phosphate, Dibasic	7558-79-4	Yes			
Sodium Phosphate, Tribasic	7601-54-9	Yes			
Sodium Selenite	10102-18-8	Yes	Yes	Yes	Yes
Stibine	7803-52-3				Yes
Stoddard Solvent	8052-41-3				Yes
Strontium Chromate	7789-06-2	Yes	Yes	Yes	
Strychnine	57-24-9	Yes			Yes
Styrene	100-42-5	Yes		Yes	Yes
Sulfur Dioxide	7446-09-5				Yes
Sulfur Hexafluoride	2551-62-4				Yes
Sulfur Monochloride	10025-67-9	Yes			Yes
Sulfur Pentafluoride	5714-22-7				Yes
Sulfur Phosphide	1314-80-3	Yes			Yes
Sulfur Tetrafluoride	7783-60-0				Yes
Sulfuric Acid	7664-93-9	Yes			Yes
Sulfuryl Fluoride	2699-79-8				Yes
2,4,5-T Amines	1319-72-8	Yes			
2,4,5-T Amines	3813-14-7	Yes			
2,4,5-T Amines	6369-96-6	Yes			
2,4,5-T Amines	6369-97-7	Yes			
2,4,5-T Esters	1928-47-8	Yes			
2,4,5-T Esters	2545-59-7	Yes			
2,4,5-T Esters	25168-15-4	Yes			
2,4,5-T Esters	61792-07-2	Yes			
2,3,7,8-TCDF (and all congeners)	51207-31-9			Yes	
TDE	72-54-8	Yes	Yes	Yes	
Tellurium (and all compounds)	13494-80-9				Yes
Tellurium Hexafluoride	7783-80-4				Yes
Terphenyls	26140-60-3				Yes
1,1,1,2-Tetrachloro-2,2,-Difluorethane	76-11-9				Yes
1,1,2,2-Tetrachloro-1,2-Difluoroethane	76-12-0				Yes
1,1,2,2-Tetrachloroethane	79-34-5		Yes		Yes
1,2,3,4-Tetrachlorobenzene	634-66-2			Yes	
1,2,3,5-Tetrachlorobenzene	634-90-2			Yes	
1,2,4,5-Tetrachlorobenzene	95-94-3			Yes	
2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD)	1746-01-6		Yes	Yes	
Tetrachloroethylene (Perchloroethylene)	127-18-4		Yes	Yes	Yes
Tetrachloronaphthalene	1335-88-2				Yes
Tetraethyl Lead	78-00-2	Yes			Yes
Tetraethyl Pyrophosphate	107-49-3	Yes			Yes
Tetraethyldithiopyrophosphate	3689-24-5				Yes
Tetramethyl Succinonitrile	3333-52-6				Yes
Tetramethyllead	75-74-1				Yes
Tetranitromethane	509-14-8				Yes
Tetryl (2,4,6-Trinitro-Phenyl-Methyl-Nitramine)	479-45-8				Yes
Thallic Oxide	1314-32-5		Yes		Yes
Thallium	7440-28-0		Yes		

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Thallium Sulfate	10031-59-1	Yes	Yes		Yes
Thallium(I) Acetate	563-68-8		Yes		Yes
Thallium(I) Nitrate	10102-45-1		Yes		Yes
Thallous Carbonate	6533-73-9		Yes		Yes
Thallous Chloride	7791-12-0		Yes		Yes
Thallous Malonate	2757-18-8		Yes		Yes
Thallous Sulfate	7446-18-6	Yes	Yes		Yes
Thionyl Chloride	7719-09-7				Yes
Thiophenol	108-98-5				Yes
Thiourea, 1-Naphthalenyl-	86-88-4				Yes
Thiram	137-26-8				Yes
Toluene	108-88-3	Yes	Yes	Yes	
Toluene-2,4-Diisocyanate	584-84-9				Yes
m-Toluidine	108-44-1				Yes
o-Toluidine	95-53-4				Yes
Toxaphene	8001-35-2	Yes	Yes	Yes	Yes
Tribromomethane	75-25-2		Yes		Yes
Tributyl Phosphate	126-73-8				Yes
Tributyltin and salts and esters				Yes	
1,1,1-Trichloroethane	71-55-6		Yes		Yes
1,1,2-Trichloroethane	79-00-5		Yes		Yes
1,2,3-Trichlorobenzene	87-61-6			Yes	
1,2,3-Trichloropropane	96-18-4				Yes
1,2,4-Trichlorobenzene	120-82-1		Yes	Yes	Yes
2,4,5-T Amines, Esters and Salts		Yes			
2,4,5-Trichloroacetic Acid (2,4,5-T)	93-76-5	Yes			Yes
2,4,5-Trichlorophenol	95-95-4	Yes		Yes	
2,4,5-Trichlorotoluene	6639-30-1			Yes	
2,4,6-Trichlorophenol	88-06-2	Yes	Yes		
Trichlorfon	52-68-6	Yes			
Trichloroacetic Acid	76-03-9				Yes
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes
Trichloromethanesulfenyl Chloride	594-42-3				Yes
Trichloronaphthalene	1321-65-9				Yes
Trichlorophenol	25167-82-2	Yes			
Triethanolamine Dodecylbenzene Sulfonate	27323-41-7	Yes			
Triethylamine	121-44-8	Yes			Yes
Trifluralin	1582-09-8			Yes	
Trimellitic Anhydride	552-30-7				Yes
Trimethyl Benzene	25551-13-7				Yes
Trimethyl Phosphite	121-45-9				Yes
Trimethylamine	75-50-3	Yes			Yes
2,4,6-Trinitrotoluene (TNT)	118-96-7				Yes
Triorthocresyl Phosphate	78-30-8				Yes
Triphenyl Amine	603-34-9				Yes
Triphenyl Phosphate	115-86-6				Yes
Turpentine	8006-64-2				Yes
Uranyl Acetate	541-09-3	Yes			
Uranyl Nitrate	10102-06-4	Yes			
n-Valeraldehyde	110-62-3				Yes
Vanadium Pentoxide	1314-62-1	Yes			
Vanadyl Sulfate	27774-13-6	Yes			
Vinyl Acetate Monomer	108-05-4	Yes			Yes
Vinyl Bromide	593-60-2				Yes
Vinyl Chloride	75-01-4		Yes	Yes	Yes
Vinyl Cyclohexene Dioxide	106-87-6				Yes
Vinyl Toluene	25013-15-4				Yes
Warfarin, & Salts, Conc.>0.3%	81-81-2				Yes
Xylene	1330-20-7	Yes		Yes	Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Xylenol	1300-71-6	Yes			
Xylidine	1300-73-8				Yes
Zinc (and all compounds)	7440-66-6		Yes	Yes	
Zinc Acetate	557-34-6	Yes	Yes	Yes	
Zinc Ammonium Chloride	52628-25-8	Yes	Yes	Yes	
Zinc Borate	1332-07-6	Yes	Yes	Yes	
Zinc Bromide	7699-45-8	Yes	Yes	Yes	
Zinc Carbonate	3486-35-9	Yes	Yes	Yes	
Zinc Chloride	7646-85-7		Yes	Yes	Yes
Zinc Cyanide	557-21-1	Yes	Yes	Yes	
Zinc Fluoride	7783-49-5	Yes	Yes	Yes	
Zinc Formate	557-41-5	Yes	Yes	Yes	
Zinc Hydrosulfite	7779-86-4	Yes	Yes	Yes	
Zinc Nitrate	7779-88-6	Yes	Yes	Yes	
Zinc Phenolsulfonate	127-82-2	Yes	Yes	Yes	
Zinc Phosphide	1314-84-7	Yes	Yes	Yes	
Zinc Silicofluoride	16871-71-9	Yes	Yes	Yes	
Zinc Sulfate	7733-02-0	Yes	Yes	Yes	
Zinc, Dichloro(4,4-Dimethyl-5((((Methylamino)Carbonyl)Oxy)Im	58270-08-9		Yes	Yes	
Zirconium Nitrate	13746-89-9	Yes			
Zirconium Potassium Fluoride	16923-95-8	Yes			
Zirconium Sulfate	14644-61-2	Yes			
Zirconium Tetrachloride	10026-11-6	Yes			

Analytical Parameter	NH3-N	BOD	Total Phosphorus	Total Arsenic	Total Cadmium	Total Chromium
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sampling Frequency	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.
Limits	37	427	7	0.041	0.014	0.048
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type	Composite	Composite	Composite	Composite	Composite	Composite
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
No. of Samples	1	1	1	1	1	1
Number of Limit Exceedances	0	0	0	0	0	0

Total Copper	Total Lead	Total Mercury	Total Nickel	Total Silver	Total Zinc	pH	HEM
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SU	mg/L
One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day, Monthly [Four (4) grab	One (1) Day, Monthly [Four (4) grab samples per
0.179	0.322	0.000012	0.043	0.023	0.445	6.0 -10.5	100.000
Composite	Composite	Composite	Composite	Composite	Composite		Grab
							Grab
							Grab
							Grab
1	1	1	1	1	1	0	4
0	0	0	0	0	0	0	0

Amenable Cyanide	Benezene	Ethyl Benzene	Toluene	Total Xylene	Volatiles	Semi-Volatiles	PCB/Pesticides
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
One (1) Day, Monthly [Four (4) grab samples per day]	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day per month.	One (1) Day per month.
0.005	0.001	0.001	0.187	0.002	N/A	N/A	N/A
Grab	Grab	Grab	Grab	Grab	Grab	Composite	Composite
Grab	Grab	Grab	Grab	Grab	Grab		
Grab	Grab	Grab	Grab	Grab	Grab		
Grab	Grab	Grab	Grab	Grab	Grab		
4	4	4	4	4	4	1	1
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**

ARCADIS

Vapor Laboratory Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. B0064410.2013.01500

Buick City/Racer, Flint, MI

Lot #: H3D180404

Andrea Krevinghaus

ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

May 1, 2013

ANALYTICAL METHODS SUMMARY

H3D180404

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H3D180404

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
M0MFF	001	AOI-09B-OXIDIZER-EFF (041613)	04/16/13	18:45
M0MFH	002	AOI-09B-AS-OWS-INF (041613)	04/16/13	18:50
M0MFJ	003	AOI-09B-SVE-INF (041613)	04/16/13	18:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H3D180404
Revised 05/01/13

Revision Note: This lot has been reissued to report results to the MDL.

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

The sample IDs for all samples were revised per client request.

Subcontract

The following analyses were performed by the TestAmerica Costa Mesa Laboratory (NELAP Accrediting Authorities: FLDOH, Lab ID E87652; Louisiana, Lab ID 01948; New York, Lab ID 11851; Oregon, Lab ID CA2000013; Utah, Lab ID CA000032012-1), 3585 Cadillac Avenue, Suite A, Costa Mesa, CA 92626, (714) 258-8610, Malcolm Moody, Laboratory Director: Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (EPA TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

Quantitation for methylcyclohexane was previously based on a one-point calibration standard at the reporting limit. Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.

PROJECT NARRATIVE

H3D180404

Revised 05/01/13

- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	L-A-B	DoD ELAP		L2311
TestAmerica Knoxville	Arkansas DEQ	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana DOHH	State Program	6	LA110001
TestAmerica Knoxville	Louisiana DEQ	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina DENR	State Program	4	64
TestAmerica Knoxville	North Carolina DHHS	State Program	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	Federal	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	NELAC	3	460176
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia DEP	State Program	3	345
TestAmerica Knoxville	West Virginia DHHR	State Program	3	9955C

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-OXIDIZER-EFF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 001 **Work Order #** M0MFF1AA **Matrix.....:** AIR

Date Sampled...: 04/16/2013 **Date Received..:** 04/18/2013
Prep Date.....: 04/18/2013 **Analysis Time....:** 04/19/2013
Prep Batch #.....: 3109012 **Analysis Time....:** 05:18
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**72**	**1.0**	**0.28**	**230**	**3.2**	**0.89**
Benzyl chloride	ND	2.0	0.39	ND	10	2.0
Bromomethane	**0.66 J**	**1.0**	**0.16**	**2.6 J**	**3.9**	**0.62**
Carbon tetrachloride	ND	1.0	0.19	ND	6.3	1.2
Chlorobenzene	**0.30 J**	**1.0**	**0.24**	**1.4 J**	**4.6**	**1.1**
Chloroethane	**0.98 J**	**1.0**	**0.18**	**2.6 J**	**2.6**	**0.46**
Chloroform	ND	1.0	0.19	ND	4.9	0.93
Chloromethane	**12**	**2.5**	**0.80**	**25**	**5.2**	**1.7**
1,2-Dibromoethane (EDB)	ND	1.0	0.22	ND	7.7	1.7
1,2-Dichlorobenzene	ND	1.0	0.35	ND	6.0	2.1
1,3-Dichlorobenzene	ND	1.0	0.32	ND	6.0	2.0
1,4-Dichlorobenzene	ND	1.0	0.32	ND	6.0	1.9
Dichlorodifluoromethane	ND	1.0	0.34	ND	4.9	1.7
1,1-Dichloroethane	ND	1.0	0.13	ND	4.0	0.53
1,2-Dichloroethane	ND	1.0	0.24	ND	4.0	0.95
cis-1,2-Dichloroethene	ND	1.0	0.30	ND	4.0	1.2
1,1-Dichloroethene	ND	1.0	0.17	ND	4.0	0.67
1,2-Dichloropropane	ND	1.0	0.26	ND	4.6	1.2
cis-1,3-Dichloropropene	ND	1.0	0.37	ND	4.5	1.7
trans-1,3-Dichloropropene	ND	1.0	0.24	ND	4.5	1.1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	1.0	0.16	ND	7.0	1.1
Ethylbenzene	**5.1**	**1.0**	**0.34**	**22**	**4.3**	**1.5**
Hexachlorobutadiene	ND	5.0	0.39	ND	53	4.2
Methylcyclohexane	**19**	**1.0**	**1.0**	**75**	**4.0**	**4.0**
Methylene chloride	**7.5**	**2.5**	**0.22**	**26**	**8.7**	**0.78**
Styrene	**13**	**1.0**	**0.29**	**54**	**4.3**	**1.2**
1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ND	6.9	2.1
Tetrachloroethene	ND	1.0	0.20	ND	6.8	1.4
Toluene	**31**	**1.0**	**0.27**	**120**	**3.8**	**1.0**
1,2,4-Trichlorobenzene	ND	5.0	0.49	ND	37	3.6
1,1,1-Trichloroethane	ND	1.0	0.15	ND	5.5	0.82
1,1,2-Trichloroethane	ND	1.0	0.27	ND	5.5	1.5
Trichloroethene	ND	1.0	0.18	ND	5.4	0.97
Trichlorofluoromethane	ND	1.0	0.12	ND	5.6	0.67
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	0.16	ND	7.7	1.2
1,2,4-Trimethylbenzene	**1.3**	**1.0**	**0.32**	**6.5**	**4.9**	**1.5**
1,3,5-Trimethylbenzene	**0.45 J**	**1.0**	**0.32**	**2.2 J**	**4.9**	**1.6**
Vinyl chloride	ND	1.0	0.36	ND	2.6	0.91
m-Xylene & p-Xylene	**11**	**1.0**	**0.60**	**49**	**4.3**	**2.6**
o-Xylene	**2.8**	**1.0**	**0.30**	**12**	**4.3**	**1.3**

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-OXIDIZER-EFF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 001 **Work Order #** M0MFF1AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	117	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

Result (ug/m3) = Result (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Reporting Limit (ug/m3) = Reporting Limit (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

MDL (ug/m3) = MDL (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-AS-OWS-INF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 002 **Work Order #** M0MFH1AA **Matrix.....:** AIR

Date Sampled...: 04/16/2013 **Date Received..:** 04/18/2013
Prep Date.....: 04/18/2013 **Analysis Time....:** 04/19/2013
Prep Batch #.....: 3109012 **Analysis Time....:** 06:06
Dilution Factor.: 36.6 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**65**	**7.3**	**2.0**	**210**	**23**	**6.5**
Benzyl chloride	ND	15	2.9	ND	76	15
Bromomethane	ND	7.3	1.2	ND	28	4.5
Carbon tetrachloride	ND	7.3	1.4	ND	46	8.7
Chlorobenzene	ND	7.3	1.8	ND	34	8.3
Chloroethane	ND	7.3	1.3	ND	19	3.4
Chloroform	ND	7.3	1.4	ND	36	6.8
Chloromethane	ND	18	5.9	ND	38	12
1,2-Dibromoethane (EDB)	ND	7.3	1.6	ND	56	12
1,2-Dichlorobenzene	ND	7.3	2.6	ND	44	15
1,3-Dichlorobenzene	ND	7.3	2.4	ND	44	14
1,4-Dichlorobenzene	ND	7.3	2.3	ND	44	14
Dichlorodifluoromethane	ND	7.3	2.5	ND	36	12
1,1-Dichloroethane	ND	7.3	0.95	ND	30	3.9
1,2-Dichloroethane	ND	7.3	1.7	ND	30	7.0
cis-1,2-Dichloroethene	ND	7.3	2.2	ND	29	8.7
1,1-Dichloroethene	ND	7.3	1.2	ND	29	4.9
1,2-Dichloropropane	ND	7.3	1.9	ND	34	8.8
cis-1,3-Dichloropropene	ND	7.3	2.7	ND	33	12
trans-1,3-Dichloropropene	ND	7.3	1.8	ND	33	8.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	7.3	1.2	ND	51	8.2
Ethylbenzene	**400**	**7.3**	**2.5**	**1700**	**32**	**11**
Hexachlorobutadiene	ND	37	2.9	ND	390	30
Methylcyclohexane	**1000**	**7.3**	**7.3**	**4200**	**29**	**29**
Methylene chloride	**1.9 J**	**18**	**1.6**	**6.5 J**	**64**	**5.7**
Styrene	**3.3 J**	**7.3**	**2.1**	**14 J**	**31**	**9.0**
1,1,2,2-Tetrachloroethane	ND	7.3	2.2	ND	50	15
Tetrachloroethene	ND	7.3	1.5	ND	50	9.9
Toluene	**440**	**7.3**	**2.0**	**1700**	**28**	**7.4**
1,2,4-Trichlorobenzene	ND	37	3.6	ND	270	27
1,1,1-Trichloroethane	ND	7.3	1.1	ND	40	6.0
1,1,2-Trichloroethane	ND	7.3	2.0	ND	40	11
Trichloroethene	ND	7.3	1.3	ND	39	7.1
Trichlorofluoromethane	ND	7.3	0.88	ND	41	4.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	7.3	1.1	ND	56	8.7
1,2,4-Trimethylbenzene	**520**	**7.3**	**2.3**	**2600**	**36**	**11**
1,3,5-Trimethylbenzene	**120**	**7.3**	**2.4**	**590**	**36**	**12**
Vinyl chloride	ND	7.3	2.6	ND	19	6.6
m-Xylene & p-Xylene	**1100**	**7.3**	**4.4**	**4700**	**32**	**19**
o-Xylene	**470**	**7.3**	**2.2**	**2000**	**32**	**9.7**

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-AS-OWS-INF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 002 **Work Order #** M0MFH1AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	115	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

Result (ug/m3) = Result (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Reporting Limit (ug/m3) = Reporting Limit (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

MDL (ug/m3) = MDL (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-SVE-INF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 003 **Work Order #** M0MFJ1AA **Matrix.....:** AIR

Date Sampled...: 04/16/2013 **Date Received..:** 04/18/2013
Prep Date.....: 04/18/2013 **Analysis Time....:** 04/18/2013
Prep Batch #.....: 3109012 **Analysis Time....:** 17:48
Dilution Factor.: 1085.64 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**8100**	**220**	**61**	**26000**	**690**	**190**
Benzyl chloride	ND	430	85	ND	2200	440
Bromomethane	ND	220	35	ND	840	130
Carbon tetrachloride	ND	220	41	ND	1400	260
Chlorobenzene	ND	220	53	ND	1000	240
Chloroethane	ND	220	38	ND	570	100
Chloroform	ND	220	41	ND	1100	200
Chloromethane	**260 J**	**540**	**170**	**540 J**	**1100**	**360**
1,2-Dibromoethane (EDB)	ND	220	48	ND	1700	370
1,2-Dichlorobenzene	ND	220	76	ND	1300	460
1,3-Dichlorobenzene	ND	220	71	ND	1300	420
1,4-Dichlorobenzene	ND	220	69	ND	1300	420
Dichlorodifluoromethane	ND	220	74	ND	1100	370
1,1-Dichloroethane	ND	220	28	ND	880	110
1,2-Dichloroethane	ND	220	51	ND	880	210
cis-1,2-Dichloroethene	ND	220	65	ND	860	260
1,1-Dichloroethene	ND	220	37	ND	860	150
1,2-Dichloropropane	ND	220	56	ND	1000	260
cis-1,3-Dichloropropene	ND	220	80	ND	990	360
trans-1,3-Dichloropropene	ND	220	52	ND	990	240
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	220	35	ND	1500	240
Ethylbenzene	**6800**	**220**	**74**	**29000**	**940**	**320**
Hexachlorobutadiene	ND	1100	85	ND	12000	900
Methylcyclohexane	**96000 E**	**220**	**220**	**380000 E**	**870**	**870**
Methylene chloride	**88 J**	**540**	**49**	**310 J**	**1900**	**170**
Styrene	ND	220	63	ND	920	270
1,1,2,2-Tetrachloroethane	ND	220	66	ND	1500	450
Tetrachloroethene	ND	220	43	ND	1500	290
Toluene	**19000**	**220**	**59**	**70000**	**820**	**220**
1,2,4-Trichlorobenzene	ND	1100	110	ND	8100	790
1,1,1-Trichloroethane	ND	220	33	ND	1200	180
1,1,2-Trichloroethane	ND	220	59	ND	1200	320
Trichloroethene	ND	220	39	ND	1200	210
Trichlorofluoromethane	ND	220	26	ND	1200	150
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	220	34	ND	1700	260
1,2,4-Trimethylbenzene	**4400**	**220**	**68**	**22000**	**1100**	**340**
1,3,5-Trimethylbenzene	**1300**	**220**	**71**	**6500**	**1100**	**350**
Vinyl chloride	ND	220	77	ND	560	200
m-Xylene & p-Xylene	**16000**	**220**	**130**	**68000**	**940**	**570**
o-Xylene	**4800**	**220**	**66**	**21000**	**940**	**290**

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-SVE-INF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 003 **Work Order #** M0MFJ1AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	124	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

Result (ug/m3) = Result (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Reporting Limit (ug/m3) = Reporting Limit (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

MDL (ug/m3) = MDL (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: AOI-09B-SVE-INF (041613)

GC/MS Volatiles

Lot-Sample # H3D180404 - 003 **Work Order #** M0MFJ2AA **Matrix.....:** AIR

Date Sampled...: 04/16/2013 **Date Received..:** 04/18/2013
Prep Date.....: 04/18/2013 **Analysis Time....:** 04/19/2013
Prep Batch #.....: 3109012 **Analysis Time....:** 06:53
Dilution Factor.: 5428.2 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Methylcyclohexane	**100000 D**	**1100**	**1100**	**420000 D**	**4400**	**4400**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	117	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

Result (ug/m3) = Result (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Reporting Limit (ug/m3) = Reporting Limit (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

MDL (ug/m3) = MDL (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H3D190000 - 012B **Work Order #** M0MK01AA **Matrix.....:** AIR

	04/16/2013	**Date Received..:**	04/18/2013
Prep Date.....:	04/18/2013	**Analysis Time....:**	04/18/2013
Prep Batch #.....:	3109012	**Analysis Time....:**	15:25
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.20	0.056	ND	0.64	0.18
Benzyl chloride	ND	0.40	0.078	ND	2.1	0.40
Bromomethane	ND	0.20	0.032	ND	0.78	0.12
Carbon tetrachloride	ND	0.20	0.038	ND	1.3	0.24
Chlorobenzene	ND	0.20	0.049	ND	0.92	0.23
Chloroethane	ND	0.20	0.035	ND	0.53	0.092
Chloroform	ND	0.20	0.038	ND	0.98	0.19
Chloromethane	ND	0.50	0.16	ND	1.0	0.33
1,2-Dibromoethane (EDB)	ND	0.20	0.044	ND	1.5	0.34
1,2-Dichlorobenzene	ND	0.20	0.070	ND	1.2	0.42
1,3-Dichlorobenzene	ND	0.20	0.065	ND	1.2	0.39
1,4-Dichlorobenzene	ND	0.20	0.064	ND	1.2	0.38
Dichlorodifluoromethane	ND	0.20	0.068	ND	0.99	0.34
1,1-Dichloroethane	ND	0.20	0.026	ND	0.81	0.11
1,2-Dichloroethane	ND	0.20	0.047	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
1,1-Dichloroethene	ND	0.20	0.034	ND	0.79	0.13
1,2-Dichloropropane	ND	0.20	0.052	ND	0.92	0.24
cis-1,3-Dichloropropene	ND	0.20	0.074	ND	0.91	0.34
trans-1,3-Dichloropropene	ND	0.20	0.048	ND	0.91	0.22
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	0.032	ND	1.4	0.22
Ethylbenzene	ND	0.20	0.068	ND	0.87	0.30
Hexachlorobutadiene	ND	1.0	0.078	ND	11	0.83
Methylcyclohexane	ND	0.20	0.20	ND	0.80	0.80
Methylene chloride	ND	0.50	0.045	ND	1.7	0.16
Styrene	ND	0.20	0.058	ND	0.85	0.25
1,1,2,2-Tetrachloroethane	ND	0.20	0.061	ND	1.4	0.42
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	ND	0.20	0.054	ND	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.73
1,1,1-Trichloroethane	ND	0.20	0.030	ND	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.054	ND	1.1	0.29
Trichloroethene	ND	0.20	0.036	ND	1.1	0.19
Trichlorofluoromethane	ND	0.20	0.024	ND	1.1	0.13
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	0.031	ND	1.5	0.24
1,2,4-Trimethylbenzene	ND	0.20	0.063	ND	0.98	0.31
1,3,5-Trimethylbenzene	ND	0.20	0.065	ND	0.98	0.32
Vinyl chloride	ND	0.20	0.071	ND	0.51	0.18
m-Xylene & p-Xylene	ND	0.20	0.12	ND	0.87	0.52
o-Xylene	ND	0.20	0.061	ND	0.87	0.26

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H3D190000 - 012B **Work Order #** M0MK01AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	115	60 - 140

Result (ug/m3) = Result (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Reporting Limit (ug/m3) = Reporting Limit (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

MDL (ug/m3) = MDL (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H3D190000 - 012C **Work Order #** M0MK01AC **Matrix.....:** AIR

	04/16/2013	**Date Received..:**	04/18/2013
Prep Date.....:	04/18/2013	**Analysis Time....:**	04/18/2013
Prep Batch #.....:	3109012	**Analysis Time....:**	11:38
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.88	16.0	15.6	98	70 - 130
Benzyl chloride	5.00	4.94	25.9	25.6	99	70 - 130
Bromomethane	5.00	4.58	19.4	17.8	92	70 - 130
Carbon tetrachloride	5.00	6.50	31.5	40.9	130	70 - 130
Chlorobenzene	5.00	4.22	23.0	19.5	84	70 - 130
Chloroethane	5.00	5.15	13.2	13.6	103	70 - 130
Chloroform	5.00	5.40	24.4	26.3	108	70 - 130
Chloromethane	5.00	5.80	10.3	12.0	116	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.56	38.4	35.0	91	70 - 130
1,2-Dichlorobenzene	5.00	4.14	30.1	24.9	83	70 - 130
1,3-Dichlorobenzene	5.00	4.16	30.1	25.0	83	70 - 130
1,4-Dichlorobenzene	5.00	4.17	30.1	25.1	83	70 - 130
Dichlorodifluoromethane	5.00	5.36	24.7	26.5	107	60 - 140
1,1-Dichloroethane	5.00	5.63	20.2	22.8	113	70 - 130
1,2-Dichloroethane	5.00	5.66	20.2	22.9	113	70 - 130
cis-1,2-Dichloroethene	5.00	4.76	19.8	18.9	95	70 - 130
1,1-Dichloroethene	5.00	4.28	19.8	17.0	86	70 - 130
1,2-Dichloropropane	5.00	5.46	23.1	25.2	109	70 - 130
cis-1,3-Dichloropropene	5.00	5.34	22.7	24.2	107	70 - 130
trans-1,3-Dichloropropene	5.00	4.86	22.7	22.1	97	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	4.48	35.0	31.3	90	60 - 140
Ethylbenzene	5.00	4.41	21.7	19.2	88	70 - 130
Hexachlorobutadiene	5.00	3.49	53.3	37.3	70	60 - 140
Methylcyclohexane	5.00	5.04	20.1	20.2	101	20 - 180
Methylene chloride	5.00	4.70	17.4	16.3	94	70 - 130
Styrene	5.00	4.62	21.3	19.7	92	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.81	34.3	33.0	96	70 - 130
Tetrachloroethene	5.00	4.18	33.9	28.3	84	70 - 130
Toluene	5.00	4.38	18.8	16.5	88	70 - 130
1,2,4-Trichlorobenzene	5.00	3.78	37.1	28.1	76	60 - 140
1,1,1-Trichloroethane	5.00	5.47	27.3	29.8	109	70 - 130
1,1,2-Trichloroethane	5.00	4.76	27.3	26.0	95	70 - 130
Trichloroethene	5.00	4.46	26.9	24.0	89	70 - 130
Trichlorofluoromethane	5.00	5.46	28.1	30.7	109	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.49	38.3	34.4	90	70 - 130
1,2,4-Trimethylbenzene	5.00	4.50	24.6	22.1	90	70 - 130
1,3,5-Trimethylbenzene	5.00	4.28	24.6	21.0	86	70 - 130
Vinyl chloride	5.00	5.33	12.8	13.6	107	70 - 130
m-Xylene & p-Xylene	10.0	9.11	43.4	39.6	91	70 - 130

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H3D190000 - 012C **Work Order #** M0MK01AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
o-Xylene	5.00	4.52	21.7	19.6	90	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	112	60 - 140

Result (ug/m3) = Result (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Reporting Limit (ug/m3) = Reporting Limit (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

MDL (ug/m3) = MDL (ppb(v/v))[unrounded] * (Molecular Weight/24.45)

Sample Data Summary
Costa Mesa

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 340-6981-1

Job Description: Arcadis - Racer - Buick City, MI

For:
TestAmerica Laboratories, Inc.
5815 Middlebrook Pike
Knoxville, TN 37921

Attention: Ms. Terry Walker Wasmund



Approved for release.
Steve Gonzales
Sample Control Tech IV
4/29/2013 10:47 AM

Steve Gonzales
Sample Control Tech IV
steve.gonzales@testamericainc.com
04/29/2013

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters; exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Cover Title Page 1

Data Summaries 4

Report Narrative 4

Sample Summary 5

Executive Summary 6

Method Summary 7

Method / Analyst Summary 8

Sample Datasheets 9

QC Data Summary 15

Data Qualifiers 16

QC Association Summary 17

Lab Chronicle 18

Reagent Traceability 19

Certification Summary 20

Organic Sample Data 21

Air - GC VOA 21

Method TO3 21

Method TO3 QC Summary 22

Method TO3 Sample Data 25

Standards Data 38

Method TO3 ICAL Data 38

Method TO3 CCAL Data 59

Raw QC Data 68

Method TO3 Blank Data 68

Method TO3 LCS/LCSD Data 71

Method TO3 Run Logs 77

Table of Contents

Shipping and Receiving Documents 79

Sample Receipt Checklist 80

Comments
No additional comments.

Receipt
The samples were received on 4/20/2013 9:30 AM; the samples arrived in good condition.

SAMPLE SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
340-6981-1	AOI-09B-OXIDIZER-EFF (041613)	Air	04/16/2013 1845	04/20/2013 0930
340-6981-2	AOI-09B-AS-OWS-INF (041613)	Air	04/16/2013 1850	04/20/2013 0930
340-6981-3	AOI-09B-SVE-INF (041613)	Air	04/16/2013 1855	04/20/2013 0930

EXECUTIVE SUMMARY - Detections

Client: TestAmerica Laboratories, Inc. Job Number: 340-6981-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
340-6981-2	**AOI-09B-AS-OWS-INF (041613)**					
TPH (as Gasoline)		29		9.6	ppm v/v	TO3
GRO (C5-C10)		24	LW	9.6	ppm v/v	TO3
340-6981-3	**AOI-09B-SVE-INF (041613)**					
TPH (as Gasoline)		3000		30	ppm v/v	TO3
GRO (C5-C10)		2600	LW	30	ppm v/v	TO3

METHOD SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Description	Lab Location	Method	Preparation Method
Matrix: Air			
Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	TAL CM	EPA TO3	
Collection via Passivated Canister			Passivated Can

Lab References:

TAL CM = TestAmerica Costa Mesa

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Method	Analyst	Analyst ID
EPA TO3	Duncan, Tyson	TD

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Client Sample ID: **AOI-09B-OXIDIZER-EFF (041613)**

Lab Sample ID: 340-6981-1
Client Matrix: Air

Date Sampled: 04/16/2013 1845
Date Received: 04/20/2013 0930

TO3 Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analysis Method:	TO3	Analysis Batch:	340-4620	Instrument ID:	GC7
	N/A	Prep Batch:	N/A	Lab File ID:	340-0003135-006
Dilution:	2.24			Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1726			Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL

Analyte	Result (ppm v/v)	Qualifier	RL
TPH (as Gasoline)	ND		4.0

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Client Sample ID: **AOI-09B-OXIDIZER-EFF (041613)**

Lab Sample ID: 340-6981-1
Client Matrix: Air

Date Sampled: 04/16/2013 1845
Date Received: 04/20/2013 0930

TO3 Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analysis Method:	TO3	Analysis Batch:	340-4620	Instrument ID:	GC7
	N/A	Prep Batch:	N/A	Lab File ID:	340-0003135-006
Dilution:	2.24			Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1726			Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL

Analyte	Result (ppm v/v)	Qualifier	RL
GRO (C5-C10)	ND	LW	4.0

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Client Sample ID: **AOI-09B-AS-OWS-INF (041613)**

Lab Sample ID: 340-6981-2
Client Matrix: Air

Date Sampled: 04/16/2013 1850
Date Received: 04/20/2013 0930

TO3 Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analysis Method:	TO3	Analysis Batch:	340-4620	Instrument ID:	GC7
	N/A	Prep Batch:	N/A	Lab File ID:	340-0003135-007
Dilution:	5.31			Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1748			Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL

Analyte	Result (ppm v/v)	Qualifier	RL
TPH (as Gasoline)	29		9.6

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Client Sample ID: **AOI-09B-AS-OWS-INF (041613)**

Lab Sample ID: 340-6981-2
Client Matrix: Air

Date Sampled: 04/16/2013 1850
Date Received: 04/20/2013 0930

TO3 Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analysis Method:	TO3	Analysis Batch:	340-4620	Instrument ID:	GC7
	N/A	Prep Batch:	N/A	Lab File ID:	340-0003135-007
Dilution:	5.31			Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1748			Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL

Analyte	Result (ppm v/v)	Qualifier	RL
GRO (C5-C10)	24	LW	9.6

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Client Sample ID: **AOI-09B-SVE-INF (041613)**

Lab Sample ID: 340-6981-3
Client Matrix: Air

Date Sampled: 04/16/2013 1855
Date Received: 04/20/2013 0930

TO3 Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analysis Method:	TO3	Analysis Batch:	340-4620	Instrument ID:	GC7
	N/A	Prep Batch:	N/A	Lab File ID:	340-0003135-012
Dilution:	16.8			Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1956			Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL

Analyte	Result (ppm v/v)	Qualifier	RL
TPH (as Gasoline)	3000		30

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Client Sample ID: **AOI-09B-SVE-INF (041613)**

Lab Sample ID: 340-6981-3
Client Matrix: Air

Date Sampled: 04/16/2013 1855
Date Received: 04/20/2013 0930

TO3 Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analysis Method:	TO3	Analysis Batch:	340-4620	Instrument ID:	GC7
	N/A	Prep Batch:	N/A	Lab File ID:	340-0003135-012
Dilution:	16.8			Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1956			Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL

Analyte	Result (ppm v/v)	Qualifier	RL
GRO (C5-C10)	2600	LW	30

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Method Blank - Batch: 340-4620

Method: TO3
Preparation: N/A

Lab Sample ID:	MB 340-4620/5	Analysis Batch:	340-4620	Instrument ID:	GC7
Client Matrix:	Air	Prep Batch:	N/A	Lab File ID:	340-0003135-005
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1703	Units:	ppm v/v	Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL
Leach Date:	N/A				

Analyte	Result	Qual	RL
GRO (C5-C10)	ND	LW	1.8
TPH (as Gasoline)	ND		1.8

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 340-4620

Method: TO3
Preparation: N/A

LCS Lab Sample ID:	LCS 340-4620/3	Analysis Batch:	340-4620	Instrument ID:	GC7
Client Matrix:	Air	Prep Batch:	N/A	Lab File ID:	340-0003135-003
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1615	Units:	ppm v/v	Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 340-4620/4	Analysis Batch:	340-4620	Instrument ID:	GC7
Client Matrix:	Air	Prep Batch:	N/A	Lab File ID:	340-0003135-004
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	04/20/2013 1639	Units:	ppm v/v	Final Weight/Volume:	1 mL
Prep Date:	N/A			Injection Volume:	1 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
TPH (as Gasoline)	88	89	80 - 131	1	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 340-4620

Method: TO3
Preparation: N/A

LCS Lab Sample ID:	LCS 340-4620/3	Units:	ppm v/v	LCSD Lab Sample ID:	LCSD 340-4620/4
Client Matrix:	Air			Client Matrix:	Air
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/20/2013 1615			Analysis Date:	04/20/2013 1639
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
TPH (as Gasoline)	31.8	31.8	28.1	28.3

DATA REPORTING QUALIFIERS

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Lab Section	Qualifier	Description
Air - GC VOA		
	LW	Quantitated against gasoline

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Air - GC VOA					
Analysis Batch:340-4620					
LCS 340-4620/3	Lab Control Sample	T	Air	TO3	
LCSD 340-4620/4	Lab Control Sample Duplicate	T	Air	TO3	
MB 340-4620/5	Method Blank	T	Air	TO3	
340-6981-1	AOI-09B-OXIDIZER-EFF (041613)	T	Air	TO3	
340-6981-2	AOI-09B-AS-OWS-INF (041613)	T	Air	TO3	
340-6981-3	AOI-09B-SVE-INF (041613)	T	Air	TO3	

Report Basis
T = Total

Client: TestAmerica Laboratories, Inc.

Job Number: 340-6981-1

Laboratory Chronicle

Lab ID: 340-6981-1 **Client ID:** AOI-09B-OXIDIZER-EFF (041613)

Sample Date/Time: 04/16/2013 18:45 Received Date/Time: 04/20/2013 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:TO3	340-6981-A-1		340-4620		04/20/2013 17:26	2.24	TAL CM	TD

Lab ID: 340-6981-2 **Client ID:** AOI-09B-AS-OWS-INF (041613)

Sample Date/Time: 04/16/2013 18:50 Received Date/Time: 04/20/2013 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:TO3	340-6981-A-2		340-4620		04/20/2013 17:48	5.31	TAL CM	TD

Lab ID: 340-6981-3 **Client ID:** AOI-09B-SVE-INF (041613)

Sample Date/Time: 04/16/2013 18:55 Received Date/Time: 04/20/2013 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:TO3	340-6981-A-3		340-4620		04/20/2013 19:56	16.8	TAL CM	TD

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:TO3	MB 340-4620/5		340-4620		04/20/2013 17:03	1	TAL CM	TD

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:TO3	LCS 340-4620/3		340-4620		04/20/2013 16:15	1	TAL CM	TD

Lab ID: LCSD **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:TO3	LCSD 340-4620/4		340-4620		04/20/2013 16:39	1	TAL CM	TD

Lab References:
TAL CM = TestAmerica Costa Mesa

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Costa Mesa Job No.: 340-6981-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
GCGAS100ICAL_00002	12/04/12	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	100 ppm v/v
GCGAS160ICAL_00001	12/04/12	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	160 ppm v/v
GCGAS220CCV_00006	10/23/13	04/09/13	N2, Lot NA	35.86 psi absolute	GCGAS440ICAL_00006	17.93 psi absolute	TPH (as Gasoline)	220 ppm v/v
.GCGAS440ICAL_00006	10/23/13	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	440 ppm v/v
GCGAS320ICAL_00002	12/04/12	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	320 ppm v/v
GCGAS440ICAL_00002	12/04/12	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	440 ppm v/v
GCGASCAL_00011	12/04/12	04/23/12	N2, Lot NA	5000 mL	GCGAS100ICAL_00002	50 mL	TPH (as Gasoline)	1 ppm v/v
.GCGAS100ICAL_00002	12/04/12	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	100 ppm v/v
GCGASSPK100_00004	12/03/13	02/18/13	N2, Lot NA	36.8 psi absolute	GCGASSPK200_00005	18.4 psi absolute	TPH (as Gasoline)	100 ppm v/v
.GCGASSPK200_00005	12/03/13	NA, Lot N2			(Purchased Reagent)		TPH (as Gasoline)	200 ppm v/v
GCGASSPK200_00001	12/04/12	NA, Lot NA			(Purchased Reagent)		TPH (as Gasoline)	200 ppm v/v

Certification Summary

Client: TestAmerica Laboratories, Inc.
Project/Site: Arcadis - Racer - Buick City, MI

TestAmerica Job ID: 340-6981-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Costa Mesa	Arizona	State Program	9	AZ0727
TestAmerica Costa Mesa	Florida	NELAP	4	E87652
TestAmerica Costa Mesa	L-A-B	DoD ELAP		L2273
TestAmerica Costa Mesa	Louisiana	NELAP	6	01948
TestAmerica Costa Mesa	Oregon	NELAP	10	CA200013
TestAmerica Costa Mesa	Utah	NELAP	8	CA000032012-1
TestAmerica Costa Mesa	Washington	State Program	10	C579

Accreditation may not be offered or required for all methods and analytes reported in this package Please contact your project manager for the laboratory's current list of certified methods and analytes.

[redacted]

Chain of Custody Record

TAL-4124 (1007)

H3D180404

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: ARCADIS	Project Manager: Tony Maffeo	Date: 4/16/13	Chain of Custody Number: 104279
Address: 28550 Cabot Dr. Suite 500	Telephone Number (Area Code)/Fax Number: 248-994-2240	Lab Number:	Page 1 of 1
City: NOVI; State: MI; Zip Code: 48377	Site Contact: Trevor Swarthout; Lab Contact:		
Project Name and Location (State): Buick City/Racer, Flint MI	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: B0064410.2013.01500			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TO-3 total VOC C5-C10	TO-15 w/methyl cyclohexane ASTIC	Special Instructions/ Conditions of Receipt
Oxidizer - Effluent-041613	4/16/13	1845	X				X						X	X	Vac 3" HG 1148
AS-OWS-Influent-041613	↓	1850	↓				↓						↓	↓	93180
~~Oxidizer~~ SVE-Influent-041613	↓	1855	↓				↓						↓	↓	1129

CUSTODY SEALS INTACT
RECEIVED AT AMBIENT TEMP
BKD 4-18-13
2 BOXES FEDX# 9044 0670 5331

3 CANS / 0 FLOWS

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☒ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Trevor Swarthout	4/17/13	854	1. Received By: Terri Harlin	4-17-13	854
2. Relinquished By: Terri Harlin	4-17-13	1102	2. Received By: Bryan Pameron	4-18-13	10:10
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 430180404

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 91261 PM Instructions: _____

Sample Receiving Associate: _____ Date: 4-18-13

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3D180404*

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Can or Tedlar bag prep Time	Baro ID 82 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID 82 Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
JDF 4-18-13	1055	28.87	MOMFF	1148	-6.5													10458
|	|	|	MOMFH	93180	-2.6		4/18/13	I	28.91	-28	32.6							
↓	↓	↓	MOMFJ	1129	-1.8		↓	S	↓	-2.1	0.8				04728	~~15.0~~ 15.0 4/18/13	2.7	↓

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3D240404
Client Project/Site: B0064410.2013.01500
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attn: Andrea Krevinghaus

Authorized for release by:
5/7/2013 12:26:42 PM

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 6
Client Sample Results 7
Surrogate Summary 11
QC Sample Results 12
QC Association Summary 17
Lab Chronicle 18
Certification Summary 19
Method Summary 20
Sample Summary 21
Chain of Custody 22
Receipt Checklists 23

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated result. Result is less than RL.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Air - GC VOA

Qualifier	Qualifier Description
LW	Quantitated against gasoline

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3D240404

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The chain of custody listed sample IDs as AOI-9B-AS-OWS-INF (042213) and AOI-9B-SVE-INF (042213), however the sample containers labels listed the IDs as AIO-09B-AS-OWS-INF (042213) and AOI-09B-SVE-INF (042213). The samples were logged the samples according to the chain of custody. Subsequently, the IDs were changed to AOI-09B-AS-OWS-INF (042213) and AOI-09B-SVE-INF (042213), per client request by email.

Subcontract

The following analyses were performed by the TestAmerica Costa Mesa Laboratory (NELAP Accrediting Authorities: FLDOH, Lab ID E87652; Louisiana, Lab ID 01948; New York, Lab ID 11851; Oregon, Lab ID CA2000013; Utah, Lab ID CA000032012-1), 3585 Cadillac Avenue, Suite A, Costa Mesa, CA 92626, (714) 258-8610, Malcolm Moody, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

Quantitation for methylcyclohexane was previously based on a one-point calibration standard at the reporting limit. Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.

PROJECT NARRATIVE
H3D240404

- A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Client Sample ID: AOI-09B-AS-OWS-INF (042213) — Lab Sample ID: H3D240404001

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	4.5	14		3.9	1.1	19.27	TO-15	Total
Ethylbenzene	25	110		3.9	1.3	19.27	TO-15	Total
Methylcyclohexane	310	1200		3.9	3.9	19.27	TO-15	Total
Methylene chloride	1.4	4.9	J B	9.6	0.87	19.27	TO-15	Total
Toluene	35	130		3.9	1.0	19.27	TO-15	Total
1,2,4-Trimethylbenzene	22	110		3.9	1.2	19.27	TO-15	Total
1,3,5-Trimethylbenzene	7.0	34		3.9	1.3	19.27	TO-15	Total
m-Xylene & p-Xylene	61	260		3.9	2.3	19.27	TO-15	Total
o-Xylene	21	90		3.9	1.2	19.27	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	14	14		12	3.4	19.27	TO-15	Total
Ethylbenzene	110	110		17	5.7	19.27	TO-15	Total
Methylcyclohexane	1200	1200		15	15	19.27	TO-15	Total
Methylene chloride	4.9	4.9	J B	33	3.0	19.27	TO-15	Total
Toluene	130	130		15	3.9	19.27	TO-15	Total
1,2,4-Trimethylbenzene	110	110		19	6.0	19.27	TO-15	Total
1,3,5-Trimethylbenzene	34	34		19	6.2	19.27	TO-15	Total
m-Xylene & p-Xylene	260	260		17	10	19.27	TO-15	Total
o-Xylene	90	90		17	5.1	19.27	TO-15	Total

Client Sample ID: AOI-09B-SVE-INF (042213) — Lab Sample ID: H3D240404002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	120	400		3.4	0.95	17.04	TO-15	Total
Ethylbenzene	33	150		3.4	1.2	17.04	TO-15	Total
Methylcyclohexane	250	1000		3.4	3.4	17.04	TO-15	Total
Methylene chloride	2.1	7.2	J B	8.5	0.77	17.04	TO-15	Total
Toluene	23	87		3.4	0.92	17.04	TO-15	Total
1,2,4-Trimethylbenzene	190	950		3.4	1.1	17.04	TO-15	Total
1,3,5-Trimethylbenzene	51	250		3.4	1.1	17.04	TO-15	Total
m-Xylene & p-Xylene	110	490		3.4	2.0	17.04	TO-15	Total
o-Xylene	47	200		3.4	1.0	17.04	TO-15	Total

Analyte	Result ppm v/v	Result	Qualifier	RL ppm v/v	MDL ppm v/v	Dil Fac	Method	Prep Type
GRO (C5-C10)	3.0		LW	2.9		1.61	TO3	Total/NA
TPH (as Gasoline)	4.9			2.9		1.61	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	400	400		11	3.0	17.04	TO-15	Total
Ethylbenzene	150	150		15	5.0	17.04	TO-15	Total
Methylcyclohexane	1000	1000		14	14	17.04	TO-15	Total
Methylene chloride	7.2	7.2	J B	30	2.7	17.04	TO-15	Total
Toluene	87	87		13	3.5	17.04	TO-15	Total
1,2,4-Trimethylbenzene	950	950		17	5.3	17.04	TO-15	Total
1,3,5-Trimethylbenzene	250	250		17	5.4	17.04	TO-15	Total
m-Xylene & p-Xylene	490	490		15	8.9	17.04	TO-15	Total
o-Xylene	200	200		15	4.5	17.04	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Client Sample ID: AOI-09B-AS-OWS-INF (042213)
Date Collected: 04/22/13 17:20
Date Received: 04/24/13 09:30

Lab Sample ID: H3D240404001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**4.5**	**14**		3.9	1.1		04/24/13 14:05	19.27
Benzyl chloride	ND	ND		7.7	1.5		04/24/13 14:05	19.27
Bromomethane	ND	ND		3.9	0.62		04/24/13 14:05	19.27
Carbon tetrachloride	ND	ND		3.9	0.73		04/24/13 14:05	19.27
Chlorobenzene	ND	ND		3.9	0.94		04/24/13 14:05	19.27
Chloroethane	ND	ND		3.9	0.67		04/24/13 14:05	19.27
Chloroform	ND	ND		3.9	0.73		04/24/13 14:05	19.27
Chloromethane	ND	ND		9.6	3.1		04/24/13 14:05	19.27
1,2-Dibromoethane (EDB)	ND	ND		3.9	0.85		04/24/13 14:05	19.27
1,2-Dichlorobenzene	ND	ND		3.9	1.3		04/24/13 14:05	19.27
1,3-Dichlorobenzene	ND	ND		3.9	1.3		04/24/13 14:05	19.27
1,4-Dichlorobenzene	ND	ND		3.9	1.2		04/24/13 14:05	19.27
Dichlorodifluoromethane	ND	ND		3.9	1.3		04/24/13 14:05	19.27
1,1-Dichloroethane	ND	ND		3.9	0.50		04/24/13 14:05	19.27
1,2-Dichloroethane	ND	ND		3.9	0.91		04/24/13 14:05	19.27
cis-1,2-Dichloroethene	ND	ND		3.9	1.2		04/24/13 14:05	19.27
1,1-Dichloroethene	ND	ND		3.9	0.66		04/24/13 14:05	19.27
1,2-Dichloropropane	ND	ND		3.9	1.0		04/24/13 14:05	19.27
cis-1,3-Dichloropropene	ND	ND		3.9	1.4		04/24/13 14:05	19.27
trans-1,3-Dichloropropene	ND	ND		3.9	0.92		04/24/13 14:05	19.27
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		3.9	0.62		04/24/13 14:05	19.27
Ethylbenzene	**25**	**110**		3.9	1.3		04/24/13 14:05	19.27
Hexachlorobutadiene	ND	ND		19	1.5		04/24/13 14:05	19.27
Methylcyclohexane	**310**	**1200**		3.9	3.9		04/24/13 14:05	19.27
Methylene chloride	**1.4**	**4.9**	**J B**	9.6	0.87		04/24/13 14:05	19.27
Styrene	ND	ND		3.9	1.1		04/24/13 14:05	19.27
1,1,2,2-Tetrachloroethane	ND	ND		3.9	1.2		04/24/13 14:05	19.27
Tetrachloroethene	ND	ND		3.9	0.77		04/24/13 14:05	19.27
Toluene	**35**	**130**		3.9	1.0		04/24/13 14:05	19.27
1,2,4-Trichlorobenzene	ND	ND		19	1.9		04/24/13 14:05	19.27
1,1,1-Trichloroethane	ND	ND		3.9	0.58		04/24/13 14:05	19.27
1,1,2-Trichloroethane	ND	ND		3.9	1.0		04/24/13 14:05	19.27
Trichloroethene	ND	ND		3.9	0.69		04/24/13 14:05	19.27
Trichlorofluoromethane	ND	ND		3.9	0.46		04/24/13 14:05	19.27
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		3.9	0.60		04/24/13 14:05	19.27
1,2,4-Trimethylbenzene	**22**	**110**		3.9	1.2		04/24/13 14:05	19.27
1,3,5-Trimethylbenzene	**7.0**	**34**		3.9	1.3		04/24/13 14:05	19.27
Vinyl chloride	ND	ND		3.9	1.4		04/24/13 14:05	19.27
m-Xylene & p-Xylene	**61**	**260**		3.9	2.3		04/24/13 14:05	19.27
o-Xylene	**21**	**90**		3.9	1.2		04/24/13 14:05	19.27

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**14**	**14**		12	3.4		04/24/13 14:05	19.27
Benzyl chloride	ND	ND		40	7.8		04/24/13 14:05	19.27
Bromomethane	ND	ND		15	2.4		04/24/13 14:05	19.27
Carbon tetrachloride	ND	ND		24	4.6		04/24/13 14:05	19.27
Chlorobenzene	ND	ND		18	4.3		04/24/13 14:05	19.27
Chloroethane	ND	ND		10	1.8		04/24/13 14:05	19.27

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Client Sample ID: AOI-09B-AS-OWS-INF (042213)
Date Collected: 04/22/13 17:20
Date Received: 04/24/13 09:30

Lab Sample ID: H3D240404001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		19	3.6		04/24/13 14:05	19.27
Chloromethane	ND	ND		20	6.4		04/24/13 14:05	19.27
1,2-Dibromoethane (EDB)	ND	ND		30	6.5		04/24/13 14:05	19.27
1,2-Dichlorobenzene	ND	ND		23	8.1		04/24/13 14:05	19.27
1,3-Dichlorobenzene	ND	ND		23	7.5		04/24/13 14:05	19.27
1,4-Dichlorobenzene	ND	ND		23	7.4		04/24/13 14:05	19.27
Dichlorodifluoromethane	ND	ND		19	6.5		04/24/13 14:05	19.27
1,1-Dichloroethane	ND	ND		16	2.0		04/24/13 14:05	19.27
1,2-Dichloroethane	ND	ND		16	3.7		04/24/13 14:05	19.27
cis-1,2-Dichloroethene	ND	ND		15	4.6		04/24/13 14:05	19.27
1,1-Dichloroethene	ND	ND		15	2.6		04/24/13 14:05	19.27
1,2-Dichloropropane	ND	ND		18	4.6		04/24/13 14:05	19.27
cis-1,3-Dichloropropene	ND	ND		17	6.5		04/24/13 14:05	19.27
trans-1,3-Dichloropropene	ND	ND		17	4.2		04/24/13 14:05	19.27
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		27	4.3		04/24/13 14:05	19.27
Ethylbenzene	**110**	**110**		17	5.7		04/24/13 14:05	19.27
Hexachlorobutadiene	ND	ND		210	16		04/24/13 14:05	19.27
Methylcyclohexane	**1200**	**1200**		15	15		04/24/13 14:05	19.27
Methylene chloride	**4.9**	**4.9**	**J B**	33	3.0		04/24/13 14:05	19.27
Styrene	ND	ND		16	4.8		04/24/13 14:05	19.27
1,1,2,2-Tetrachloroethane	ND	ND		26	8.1		04/24/13 14:05	19.27
Tetrachloroethene	ND	ND		26	5.2		04/24/13 14:05	19.27
Toluene	**130**	**130**		15	3.9		04/24/13 14:05	19.27
1,2,4-Trichlorobenzene	ND	ND		140	14		04/24/13 14:05	19.27
1,1,1-Trichloroethane	ND	ND		21	3.2		04/24/13 14:05	19.27
1,1,2-Trichloroethane	ND	ND		21	5.7		04/24/13 14:05	19.27
Trichloroethene	ND	ND		21	3.7		04/24/13 14:05	19.27
Trichlorofluoromethane	ND	ND		22	2.6		04/24/13 14:05	19.27
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		30	4.6		04/24/13 14:05	19.27
1,2,4-Trimethylbenzene	**110**	**110**		19	6.0		04/24/13 14:05	19.27
1,3,5-Trimethylbenzene	**34**	**34**		19	6.2		04/24/13 14:05	19.27
Vinyl chloride	ND	ND		9.9	3.5		04/24/13 14:05	19.27
m-Xylene & p-Xylene	**260**	**260**		17	10		04/24/13 14:05	19.27
o-Xylene	**90**	**90**		17	5.1		04/24/13 14:05	19.27

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*60 - 140*		*04/24/13 14:05*	*19.27*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppm v/v	Result	Qualifier	RL ppm v/v	MDL ppm v/v	Prepared	Analyzed	Dil Fac
GRO (C5-C10)	ND		LW	2.8			04/27/13 21:58	1.56
TPH (as Gasoline)	ND			2.8			04/27/13 21:58	1.56

Client Sample ID: AOI-09B-SVE-INF (042213)
Date Collected: 04/22/13 17:25
Date Received: 04/24/13 09:30

Lab Sample ID: H3D240404002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**120**	**400**		3.4	0.95		04/24/13 20:09	17.04
Benzyl chloride	ND	ND		6.8	1.3		04/24/13 20:09	17.04
Bromomethane	ND	ND		3.4	0.55		04/24/13 20:09	17.04
Carbon tetrachloride	ND	ND		3.4	0.65		04/24/13 20:09	17.04
Chlorobenzene	ND	ND		3.4	0.83		04/24/13 20:09	17.04
Chloroethane	ND	ND		3.4	0.60		04/24/13 20:09	17.04
Chloroform	ND	ND		3.4	0.65		04/24/13 20:09	17.04
Chloromethane	ND	ND		8.5	2.7		04/24/13 20:09	17.04
1,2-Dibromoethane (EDB)	ND	ND		3.4	0.75		04/24/13 20:09	17.04
1,2-Dichlorobenzene	ND	ND		3.4	1.2		04/24/13 20:09	17.04
1,3-Dichlorobenzene	ND	ND		3.4	1.1		04/24/13 20:09	17.04
1,4-Dichlorobenzene	ND	ND		3.4	1.1		04/24/13 20:09	17.04
Dichlorodifluoromethane	ND	ND		3.4	1.2		04/24/13 20:09	17.04
1,1-Dichloroethane	ND	ND		3.4	0.44		04/24/13 20:09	17.04
1,2-Dichloroethane	ND	ND		3.4	0.80		04/24/13 20:09	17.04
cis-1,2-Dichloroethene	ND	ND		3.4	1.0		04/24/13 20:09	17.04
1,1-Dichloroethene	ND	ND		3.4	0.58		04/24/13 20:09	17.04
1,2-Dichloropropane	ND	ND		3.4	0.89		04/24/13 20:09	17.04
cis-1,3-Dichloropropene	ND	ND		3.4	1.3		04/24/13 20:09	17.04
trans-1,3-Dichloropropene	ND	ND		3.4	0.82		04/24/13 20:09	17.04
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		3.4	0.55		04/24/13 20:09	17.04
Ethylbenzene	**33**	**150**		3.4	1.2		04/24/13 20:09	17.04
Hexachlorobutadiene	ND	ND		17	1.3		04/24/13 20:09	17.04
Methylcyclohexane	**250**	**1000**		3.4	3.4		04/24/13 20:09	17.04
Methylene chloride	**2.1**	**7.2**	**J B**	8.5	0.77		04/24/13 20:09	17.04
Styrene	ND	ND		3.4	0.99		04/24/13 20:09	17.04
1,1,2,2-Tetrachloroethane	ND	ND		3.4	1.0		04/24/13 20:09	17.04
Tetrachloroethene	ND	ND		3.4	0.68		04/24/13 20:09	17.04
Toluene	**23**	**87**		3.4	0.92		04/24/13 20:09	17.04
1,2,4-Trichlorobenzene	ND	ND		17	1.7		04/24/13 20:09	17.04
1,1,1-Trichloroethane	ND	ND		3.4	0.51		04/24/13 20:09	17.04
1,1,2-Trichloroethane	ND	ND		3.4	0.92		04/24/13 20:09	17.04
Trichloroethene	ND	ND		3.4	0.61		04/24/13 20:09	17.04
Trichlorofluoromethane	ND	ND		3.4	0.41		04/24/13 20:09	17.04
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		3.4	0.53		04/24/13 20:09	17.04
1,2,4-Trimethylbenzene	**190**	**950**		3.4	1.1		04/24/13 20:09	17.04
1,3,5-Trimethylbenzene	**51**	**250**		3.4	1.1		04/24/13 20:09	17.04
Vinyl chloride	ND	ND		3.4	1.2		04/24/13 20:09	17.04
m-Xylene & p-Xylene	**110**	**490**		3.4	2.0		04/24/13 20:09	17.04
o-Xylene	**47**	**200**		3.4	1.0		04/24/13 20:09	17.04

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**400**	**400**		11	3.0		04/24/13 20:09	17.04
Benzyl chloride	ND	ND		35	6.9		04/24/13 20:09	17.04
Bromomethane	ND	ND		13	2.1		04/24/13 20:09	17.04
Carbon tetrachloride	ND	ND		21	4.1		04/24/13 20:09	17.04
Chlorobenzene	ND	ND		16	3.8		04/24/13 20:09	17.04
Chloroethane	ND	ND		9.0	1.6		04/24/13 20:09	17.04

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Client Sample ID: AOI-09B-SVE-INF (042213)
Date Collected: 04/22/13 17:25
Date Received: 04/24/13 09:30

Lab Sample ID: H3D240404002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		17	3.2		04/24/13 20:09	17.04
Chloromethane	ND	ND		18	5.6		04/24/13 20:09	17.04
1,2-Dibromoethane (EDB)	ND	ND		26	5.8		04/24/13 20:09	17.04
1,2-Dichlorobenzene	ND	ND		20	7.2		04/24/13 20:09	17.04
1,3-Dichlorobenzene	ND	ND		20	6.7		04/24/13 20:09	17.04
1,4-Dichlorobenzene	ND	ND		20	6.6		04/24/13 20:09	17.04
Dichlorodifluoromethane	ND	ND		17	5.7		04/24/13 20:09	17.04
1,1-Dichloroethane	ND	ND		14	1.8		04/24/13 20:09	17.04
1,2-Dichloroethane	ND	ND		14	3.2		04/24/13 20:09	17.04
cis-1,2-Dichloroethene	ND	ND		14	4.1		04/24/13 20:09	17.04
1,1-Dichloroethene	ND	ND		14	2.3		04/24/13 20:09	17.04
1,2-Dichloropropane	ND	ND		16	4.1		04/24/13 20:09	17.04
cis-1,3-Dichloropropene	ND	ND		15	5.7		04/24/13 20:09	17.04
trans-1,3-Dichloropropene	ND	ND		15	3.7		04/24/13 20:09	17.04
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		24	3.8		04/24/13 20:09	17.04
Ethylbenzene	**150**	**150**		15	5.0		04/24/13 20:09	17.04
Hexachlorobutadiene	ND	ND		180	14		04/24/13 20:09	17.04
Methylcyclohexane	**1000**	**1000**		14	14		04/24/13 20:09	17.04
Methylene chloride	**7.2**	**7.2**	**J B**	30	2.7		04/24/13 20:09	17.04
Styrene	ND	ND		15	4.2		04/24/13 20:09	17.04
1,1,2,2-Tetrachloroethane	ND	ND		23	7.1		04/24/13 20:09	17.04
Tetrachloroethene	ND	ND		23	4.6		04/24/13 20:09	17.04
Toluene	**87**	**87**		13	3.5		04/24/13 20:09	17.04
1,2,4-Trichlorobenzene	ND	ND		130	12		04/24/13 20:09	17.04
1,1,1-Trichloroethane	ND	ND		19	2.8		04/24/13 20:09	17.04
1,1,2-Trichloroethane	ND	ND		19	5.0		04/24/13 20:09	17.04
Trichloroethene	ND	ND		18	3.3		04/24/13 20:09	17.04
Trichlorofluoromethane	ND	ND		19	2.3		04/24/13 20:09	17.04
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		26	4.0		04/24/13 20:09	17.04
1,2,4-Trimethylbenzene	**950**	**950**		17	5.3		04/24/13 20:09	17.04
1,3,5-Trimethylbenzene	**250**	**250**		17	5.4		04/24/13 20:09	17.04
Vinyl chloride	ND	ND		8.7	3.1		04/24/13 20:09	17.04
m-Xylene & p-Xylene	**490**	**490**		15	8.9		04/24/13 20:09	17.04
o-Xylene	**200**	**200**		15	4.5		04/24/13 20:09	17.04

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*60 - 140*		*04/24/13 20:09*	*17.04*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppm v/v	Result	Qualifier	RL ppm v/v	MDL ppm v/v	Prepared	Analyzed	Dil Fac
GRO (C5-C10)	**3.0**		**LW**	2.9			04/27/13 22:19	1.61
TPH (as Gasoline)	**4.9**			2.9			04/27/13 22:19	1.61

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB								
Lab Sample ID	Client Sample ID	(60-140)								
H3D240000046B	Method Blank	101								
H3D240000046C	Lab Control Sample	99								
H3D240404001	AOI-09B-AS-OWS-INF (042213)	102								
H3D240404002	AOI-09B-SVE-INF (042213)	104								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3D240000046B
Matrix: Air
Analysis Batch: 3114046

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		04/24/13 13:19	1
Benzyl chloride	ND	ND		0.40	0.078		04/24/13 13:19	1
Bromomethane	ND	ND		0.20	0.032		04/24/13 13:19	1
Carbon tetrachloride	ND	ND		0.20	0.038		04/24/13 13:19	1
Chlorobenzene	ND	ND		0.20	0.049		04/24/13 13:19	1
Chloroethane	ND	ND		0.20	0.035		04/24/13 13:19	1
Chloroform	ND	ND		0.20	0.038		04/24/13 13:19	1
Chloromethane	ND	ND		0.50	0.16		04/24/13 13:19	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		04/24/13 13:19	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		04/24/13 13:19	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		04/24/13 13:19	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		04/24/13 13:19	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		04/24/13 13:19	1
1,1-Dichloroethane	ND	ND		0.20	0.026		04/24/13 13:19	1
1,2-Dichloroethane	ND	ND		0.20	0.047		04/24/13 13:19	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		04/24/13 13:19	1
1,1-Dichloroethene	ND	ND		0.20	0.034		04/24/13 13:19	1
1,2-Dichloropropane	ND	ND		0.20	0.052		04/24/13 13:19	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		04/24/13 13:19	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		04/24/13 13:19	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		04/24/13 13:19	1
Ethylbenzene	ND	ND		0.20	0.068		04/24/13 13:19	1
Hexachlorobutadiene	ND	ND		1.0	0.078		04/24/13 13:19	1
Methylcyclohexane	ND	ND		0.20	0.20		04/24/13 13:19	1
Methylene chloride	0.090	0.31	J	0.50	0.045		04/24/13 13:19	1
Styrene	ND	ND		0.20	0.058		04/24/13 13:19	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		04/24/13 13:19	1
Tetrachloroethene	ND	ND		0.20	0.040		04/24/13 13:19	1
Toluene	ND	ND		0.20	0.054		04/24/13 13:19	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		04/24/13 13:19	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		04/24/13 13:19	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		04/24/13 13:19	1
Trichloroethene	ND	ND		0.20	0.036		04/24/13 13:19	1
Trichlorofluoromethane	ND	ND		0.20	0.024		04/24/13 13:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		04/24/13 13:19	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		04/24/13 13:19	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		04/24/13 13:19	1
Vinyl chloride	ND	ND		0.20	0.071		04/24/13 13:19	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		04/24/13 13:19	1
o-Xylene	ND	ND		0.20	0.061		04/24/13 13:19	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		04/24/13 13:19	1
Benzyl chloride	ND	ND		2.1	0.40		04/24/13 13:19	1
Bromomethane	ND	ND		0.78	0.12		04/24/13 13:19	1
Carbon tetrachloride	ND	ND		1.3	0.24		04/24/13 13:19	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3D240000046B
Matrix: Air
Analysis Batch: 3114046

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	ND		0.92	0.23		04/24/13 13:19	1
Chloroethane	ND	ND		0.53	0.092		04/24/13 13:19	1
Chloroform	ND	ND		0.98	0.19		04/24/13 13:19	1
Chloromethane	ND	ND		1.0	0.33		04/24/13 13:19	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		04/24/13 13:19	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		04/24/13 13:19	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		04/24/13 13:19	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		04/24/13 13:19	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		04/24/13 13:19	1
1,1-Dichloroethane	ND	ND		0.81	0.11		04/24/13 13:19	1
1,2-Dichloroethane	ND	ND		0.81	0.19		04/24/13 13:19	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		04/24/13 13:19	1
1,1-Dichloroethene	ND	ND		0.79	0.13		04/24/13 13:19	1
1,2-Dichloropropane	ND	ND		0.92	0.24		04/24/13 13:19	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		04/24/13 13:19	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		04/24/13 13:19	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		04/24/13 13:19	1
Ethylbenzene	ND	ND		0.87	0.30		04/24/13 13:19	1
Hexachlorobutadiene	ND	ND		11	0.83		04/24/13 13:19	1
Methylcyclohexane	ND	ND		0.80	0.80		04/24/13 13:19	1
Methylene chloride	0.31	0.31	J	1.7	0.16		04/24/13 13:19	1
Styrene	ND	ND		0.85	0.25		04/24/13 13:19	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		04/24/13 13:19	1
Tetrachloroethene	ND	ND		1.4	0.27		04/24/13 13:19	1
Toluene	ND	ND		0.75	0.20		04/24/13 13:19	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		04/24/13 13:19	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		04/24/13 13:19	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		04/24/13 13:19	1
Trichloroethene	ND	ND		1.1	0.19		04/24/13 13:19	1
Trichlorofluoromethane	ND	ND		1.1	0.13		04/24/13 13:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		04/24/13 13:19	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		04/24/13 13:19	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		04/24/13 13:19	1
Vinyl chloride	ND	ND		0.51	0.18		04/24/13 13:19	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		04/24/13 13:19	1
o-Xylene	ND	ND		0.87	0.26		04/24/13 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*60 - 140*		*04/24/13 13:19*	*1*

Lab Sample ID: H3D240000046C
Matrix: Air
Analysis Batch: 3114046

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.48		ppb(v/v)		90	70 - 130
Benzyl chloride	5.00	4.67		ppb(v/v)		93	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3D240000046C
Matrix: Air
Analysis Batch: 3114046

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	5.00	4.56		ppb(v/v)		91	70 - 130
Carbon tetrachloride	5.00	5.65		ppb(v/v)		113	70 - 130
Chlorobenzene	5.00	4.68		ppb(v/v)		94	70 - 130
Chloroethane	5.00	4.18		ppb(v/v)		84	70 - 130
Chloroform	5.00	4.81		ppb(v/v)		96	70 - 130
Chloromethane	5.00	4.68		ppb(v/v)		94	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.96		ppb(v/v)		99	70 - 130
1,2-Dichlorobenzene	5.00	4.62		ppb(v/v)		92	70 - 130
1,3-Dichlorobenzene	5.00	4.62		ppb(v/v)		92	70 - 130
1,4-Dichlorobenzene	5.00	4.60		ppb(v/v)		92	70 - 130
Dichlorodifluoromethane	5.00	6.15		ppb(v/v)		123	60 - 140
1,1-Dichloroethane	5.00	4.71		ppb(v/v)		94	70 - 130
1,2-Dichloroethane	5.00	4.83		ppb(v/v)		97	70 - 130
cis-1,2-Dichloroethene	5.00	4.80		ppb(v/v)		96	70 - 130
1,1-Dichloroethene	5.00	4.71		ppb(v/v)		94	70 - 130
1,2-Dichloropropane	5.00	4.63		ppb(v/v)		93	70 - 130
cis-1,3-Dichloropropene	5.00	4.75		ppb(v/v)		95	70 - 130
trans-1,3-Dichloropropene	5.00	4.98		ppb(v/v)		100	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.31		ppb(v/v)		106	60 - 140
Ethylbenzene	5.00	4.33		ppb(v/v)		87	70 - 130
Hexachlorobutadiene	5.00	4.56		ppb(v/v)		91	60 - 140
Methylcyclohexane	5.00	4.85		ppb(v/v)		97	20 - 180
Methylene chloride	5.00	4.80		ppb(v/v)		96	70 - 130
Styrene	5.00	4.64		ppb(v/v)		93	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.50		ppb(v/v)		90	70 - 130
Tetrachloroethene	5.00	5.03		ppb(v/v)		101	70 - 130
Toluene	5.00	4.59		ppb(v/v)		92	70 - 130
1,2,4-Trichlorobenzene	5.00	5.11		ppb(v/v)		102	60 - 140
1,1,1-Trichloroethane	5.00	4.96		ppb(v/v)		99	70 - 130
1,1,2-Trichloroethane	5.00	4.68		ppb(v/v)		94	70 - 130
Trichloroethene	5.00	4.92		ppb(v/v)		98	70 - 130
Trichlorofluoromethane	5.00	5.02		ppb(v/v)		100	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.84		ppb(v/v)		97	70 - 130
1,2,4-Trimethylbenzene	5.00	4.52		ppb(v/v)		90	70 - 130
1,3,5-Trimethylbenzene	5.00	4.43		ppb(v/v)		89	70 - 130
Vinyl chloride	5.00	4.65		ppb(v/v)		93	70 - 130
m-Xylene & p-Xylene	10.0	8.54		ppb(v/v)		85	70 - 130
o-Xylene	5.00	4.24		ppb(v/v)		85	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	14.3		ug/m3		90	70 - 130
Benzyl chloride	25.9	24.2		ug/m3		93	70 - 130
Bromomethane	19.4	17.7		ug/m3		91	70 - 130
Carbon tetrachloride	31.5	35.6		ug/m3		113	70 - 130
Chlorobenzene	23.0	21.5		ug/m3		94	70 - 130
Chloroethane	13.2	11.0		ug/m3		84	70 - 130
Chloroform	24.4	23.5		ug/m3		96	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3D240000046C
Matrix: Air
Analysis Batch: 3114046

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.3	9.66		ug/m3		94	60 - 140
1,2-Dibromoethane (EDB)	38.4	38.1		ug/m3		99	70 - 130
1,2-Dichlorobenzene	30.1	27.8		ug/m3		92	70 - 130
1,3-Dichlorobenzene	30.1	27.8		ug/m3		92	70 - 130
1,4-Dichlorobenzene	30.1	27.7		ug/m3		92	70 - 130
Dichlorodifluoromethane	24.7	30.4		ug/m3		123	60 - 140
1,1-Dichloroethane	20.2	19.1		ug/m3		94	70 - 130
1,2-Dichloroethane	20.2	19.6		ug/m3		97	70 - 130
cis-1,2-Dichloroethene	19.8	19.0		ug/m3		96	70 - 130
1,1-Dichloroethene	19.8	18.7		ug/m3		94	70 - 130
1,2-Dichloropropane	23.1	21.4		ug/m3		93	70 - 130
cis-1,3-Dichloropropene	22.7	21.5		ug/m3		95	70 - 130
trans-1,3-Dichloropropene	22.7	22.6		ug/m3		100	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	37.1		ug/m3		106	60 - 140
Ethylbenzene	21.7	18.8		ug/m3		87	70 - 130
Hexachlorobutadiene	53.3	48.6		ug/m3		91	60 - 140
Methylcyclohexane	20.1	19.5		ug/m3		97	20 - 180
Methylene chloride	17.4	16.7		ug/m3		96	70 - 130
Styrene	21.3	19.8		ug/m3		93	70 - 130
1,1,2,2-Tetrachloroethane	34.3	30.9		ug/m3		90	70 - 130
Tetrachloroethene	33.9	34.1		ug/m3		101	70 - 130
Toluene	18.8	17.3		ug/m3		92	70 - 130
1,2,4-Trichlorobenzene	37.1	37.9		ug/m3		102	60 - 140
1,1,1-Trichloroethane	27.3	27.1		ug/m3		99	70 - 130
1,1,2-Trichloroethane	27.3	25.5		ug/m3		94	70 - 130
Trichloroethene	26.9	26.5		ug/m3		98	70 - 130
Trichlorofluoromethane	28.1	28.2		ug/m3		100	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	37.1		ug/m3		97	70 - 130
1,2,4-Trimethylbenzene	24.6	22.2		ug/m3		90	70 - 130
1,3,5-Trimethylbenzene	24.6	21.8		ug/m3		89	70 - 130
Vinyl chloride	12.8	11.9		ug/m3		93	70 - 130
m-Xylene & p-Xylene	43.4	37.1		ug/m3		85	70 - 130
o-Xylene	21.7	18.4		ug/m3		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 340-4655/8
Matrix: Air
Analysis Batch: 4655

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C5-C10)	ND		1.8		ppm v/v			04/27/13 20:28	1
TPH (as Gasoline)	ND		1.8		ppm v/v			04/27/13 20:28	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: LCS 340-4655/4
Matrix: Air
Analysis Batch: 4655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH (as Gasoline)			31.8	29.3		ppm v/v		92	80 - 131		

Lab Sample ID: LCSD 340-4655/5
Matrix: Air
Analysis Batch: 4655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH (as Gasoline)			31.8	28.8		ppm v/v		90	80 - 131	2	20

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

GC/MS VOA

Analysis Batch: 3114046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3D240000046B	Method Blank	Total	Air	TO-15	
H3D240000046C	Lab Control Sample	Total	Air	TO-15	
H3D240404001	AOI-09B-AS-OWS-INF (042213)	Total	Air	TO-15	
H3D240404002	AOI-09B-SVE-INF (042213)	Total	Air	TO-15	

Air - GC VOA

Analysis Batch: 4655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3D240404001	AOI-09B-AS-OWS-INF (042213)	Total/NA	Air	TO3	
H3D240404002	AOI-09B-SVE-INF (042213)	Total/NA	Air	TO3	
LCS 340-4655/4	Lab Control Sample	Total/NA	Air	TO3	
LCSD 340-4655/5	Lab Control Sample Dup	Total/NA	Air	TO3	
MB 340-4655/8	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Client Sample ID: AOI-09B-AS-OWS-INF (042213)

Lab Sample ID: H3D240404001

Date Collected: 04/22/13 17:20

Matrix: Air

Date Received: 04/24/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		19.27	3114046	04/24/13 14:05	HT	TAL KNX
Total/NA	Analysis	TO3		1.56	4655	04/27/13 21:58	TD	TAL CM
Total/NA	Analysis	TO3		1.56	4655	04/27/13 21:58	TD	TAL CM

Client Sample ID: AOI-09B-SVE-INF (042213)

Lab Sample ID: H3D240404002

Date Collected: 04/22/13 17:25

Matrix: Air

Date Received: 04/24/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		17.04	3114046	04/24/13 20:09	HT	TAL KNX
Total/NA	Analysis	TO3		1.61	4655	04/27/13 22:19	TD	TAL CM
Total/NA	Analysis	TO3		1.61	4655	04/27/13 22:19	TD	TAL CM

Laboratory References:

TAL CM = TestAmerica Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626, TEL (714)258-8610

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-13
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-13
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	06-30-13
Nevada	State Program	9	TN00009	07-31-13
New Jersey	NELAP	2	TN001	06-30-13
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-13
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-30-13
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-13
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-13
USDA	Federal		P330-11-00035	01-20-14
Utah	NELAP	8	QUAN3	06-30-13
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-13
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-13

Laboratory: TestAmerica Costa Mesa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0727	02-09-14
Florida	NELAP	4	E87652	06-30-13
L-A-B	DoD ELAP		L2273	11-09-13
Louisiana	NELAP	6	01948	06-30-13
Oregon	NELAP	10	CA200013	07-19-13
Utah	NELAP	8	CA000032012-1	06-30-13
Washington	State Program	10	C579	11-29-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL CM

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL CM = TestAmerica Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626, TEL (714)258-8610

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3D240404

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
H3D240404001	AOI-09B-AS-OWS-INF (042213)	Air	04/22/13 17:20	04/24/13 09:30
H3D240404002	AOI-09B-SVE-INF (042213)	Air	04/22/13 17:25	04/24/13 09:30

Chain of Custody Record

H3D240404

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	TONY MAFFEO	4.22.13	104293
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
28550 CABOT DR. STE 500	248-994-2240		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
NOVI / MI / 48377	TREVOR SWARTHOUT		
Project Name and Location (State)	**Carrier/Waybill Number**		
RACER BUICK CITY FLINT MI			
Contract/Purchase Order/Quote No.			
TREVOR SWARTHOUT B0064410.2013.01500			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: TO-3 (TOTAL VOC) C3-C44	TO-15 w/ Methyl Cyclo Hexane 45 TIC	Special Instructions/ Conditions of Receipt
AOI-9B-AS-OWS-~~INFLUENT (04/22/13)~~ INF (04/22/13)	04.22.13	1720	X				X						X		1533
AOI-9B-SVE-~~INFLUENT (04/22/13)~~ INF (04/22/13)	04.22.13	1725	X				X						X		1371

1 Box with Custody SEAL
RECEIVED @ Ambient Temp
R.H 4/24/13
1 Box FedEx 904406705971
2 CANS / 0 FLOW

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☒ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4.23.13	813	1. Received By	4-23-13	8:13
2. Relinquished By	4-23-13	8:15	2. Received By Rita Hancock	4/24/13	09:30
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H3D240402

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☒ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	1A AOI-9B-AS-OWS-INF(042213) Labeled as AIO-09B-AS-OWS-INF(042213) Log per COC 1A AOI-9B-SVE-INF(042213) Labeled as AIO-09B-SVE-INF(042213) Log per COC
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 91261 PM Instructions: NA

Sample Receiving Associate: Rita Hancock Date: 4/24/13

QA026R23.doc, 022812

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3D240404*

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Can or Tedlar bag prep Time	Baro ID B2 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID B2 Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 4-24-13	1050	28.67	MONAK	1533	-12.0	+3.4												10458
"	"	"	MONAL	1371	-7.2	—	4/24/13	X	28.87	-7.0	+31.6							"

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3E060407
Client Project Description: Racer Buick - Flint, MI

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attn: Andrea Krevinghaus

Authorized for release by:
5/20/2013 10:28:00 AM

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 7
Client Sample Results 9
Surrogate Summary 13
QC Sample Results 14
QC Association Summary 19
Lab Chronicle 20
Certification Summary 21
Method Summary 22
Sample Summary 23
Chain of Custody 24
Receipt Checklists 25

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated result. Result is less than RL.
a	Spiked analyte recovery is outside stated control limits.
ME	The percent recovery of the analyte is outside the control limits but within marginal exceedance limits.

Air - GC VOA

Qualifier	Qualifier Description
LW	Quantitated against gasoline

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3E060407

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Subcontract

The following analyses were performed by the TestAmerica Costa Mesa Laboratory (NELAP Accrediting Authorities: FLDOH, Lab ID E87652; Louisiana, Lab ID 01948; New York, Lab ID 11851; Oregon, Lab ID CA2000013; Utah, Lab ID CA000032012-1), 3585 Cadillac Avenue, Suite A, Costa Mesa, CA 92626, (714) 258-8610, Malcolm Moody, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

For this method, the continuing calibration verification standard and the LCS are the same sample. While the result for carbon tetrachloride is flagged as being outside limits for batch 3127079, the results met the acceptance criteria which allows for two analytes to be within marginal exceedence limits.

Quantitation for methyl cyclohexane based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.

PROJECT NARRATIVE
H3E060407

- A method detection limit study has not been performed. The detection of the analyte is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3E060407

Laboratory: TestAmerica Costa Mesa

Narrative

Job Narrative
340-7199-1

Comments
No additional comments.

Receipt
The samples were received on 5/10/2013 10:30 AM; the samples arrived in good condition.

Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: H3E060407

Client Sample ID: AOI-09B-AS-OWS-INF (050313)

Lab Sample ID: H3E060407001

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	0.70	2.2		0.20	0.056	1	TO-15	Total
Carbon tetrachloride	0.086	0.54	J	0.20	0.038	1	TO-15	Total
Chloromethane	0.71	1.5		0.50	0.16	1	TO-15	Total
Dichlorodifluoromethane	0.46	2.3		0.20	0.068	1	TO-15	Total
Ethylbenzene	2.9	13		0.20	0.068	1	TO-15	Total
Methylcyclohexane	14	58		0.20	0.20	1	TO-15	Total
Methylene chloride	0.18	0.63	J	0.50	0.045	1	TO-15	Total
Toluene	5.0	19		0.20	0.054	1	TO-15	Total
Trichlorofluoromethane	0.22	1.2		0.20	0.024	1	TO-15	Total
1,1,2-Trichloro-1,2,2-trifluoroethane	0.062	0.47	J	0.20	0.031	1	TO-15	Total
1,2,4-Trimethylbenzene	8.1	40		0.20	0.063	1	TO-15	Total
1,3,5-Trimethylbenzene	2.2	11		0.20	0.065	1	TO-15	Total
m-Xylene & p-Xylene	11	48		0.20	0.12	1	TO-15	Total
o-Xylene	4.0	17		0.20	0.061	1	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	2.2	2.2		0.64	0.18	1	TO-15	Total
Carbon tetrachloride	0.54	0.54	J	1.3	0.24	1	TO-15	Total
Chloromethane	1.5	1.5		1.0	0.33	1	TO-15	Total
Dichlorodifluoromethane	2.3	2.3		0.99	0.34	1	TO-15	Total
Ethylbenzene	13	13		0.87	0.30	1	TO-15	Total
Methylcyclohexane	58	58		0.80	0.80	1	TO-15	Total
Methylene chloride	0.63	0.63	J	1.7	0.16	1	TO-15	Total
Toluene	19	19		0.75	0.20	1	TO-15	Total
Trichlorofluoromethane	1.2	1.2		1.1	0.13	1	TO-15	Total
1,1,2-Trichloro-1,2,2-trifluoroethane	0.47	0.47	J	1.5	0.24	1	TO-15	Total
1,2,4-Trimethylbenzene	40	40		0.98	0.31	1	TO-15	Total
1,3,5-Trimethylbenzene	11	11		0.98	0.32	1	TO-15	Total
m-Xylene & p-Xylene	48	48		0.87	0.52	1	TO-15	Total
o-Xylene	17	17		0.87	0.26	1	TO-15	Total

Client Sample ID: AOI-09B-SVE-INF (050313)

Lab Sample ID: H3E060407002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	220	690		2.0	0.56	10	TO-15	Total
Dichlorodifluoromethane	0.73	3.6	J	2.0	0.68	10	TO-15	Total
Ethylbenzene	3.4	15		2.0	0.68	10	TO-15	Total
Methylcyclohexane	29	120		2.0	2.0	10	TO-15	Total
Methylene chloride	4.8	17	J	5.0	0.45	10	TO-15	Total
Toluene	5.4	20		2.0	0.54	10	TO-15	Total
Trichlorofluoromethane	0.31	1.8	J	2.0	0.24	10	TO-15	Total
1,2,4-Trimethylbenzene	26	130		2.0	0.63	10	TO-15	Total
1,3,5-Trimethylbenzene	6.6	32		2.0	0.65	10	TO-15	Total
m-Xylene & p-Xylene	14	60		2.0	1.2	10	TO-15	Total
o-Xylene	6.4	28		2.0	0.61	10	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	690	690		6.4	1.8	10	TO-15	Total
Dichlorodifluoromethane	3.6	3.6	J	9.9	3.4	10	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client Sample ID: AOI-09B-SVE-INF (050313) (Continued) Lab Sample ID: H3E060407002

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Ethylbenzene	15	15		8.7	3.0	10	TO-15	Total
Methylcyclohexane	120	120		8.0	8.0	10	TO-15	Total
Methylene chloride	17	17	J	17	1.6	10	TO-15	Total
Toluene	20	20		7.5	2.0	10	TO-15	Total
Trichlorofluoromethane	1.8	1.8	J	11	1.3	10	TO-15	Total
1,2,4-Trimethylbenzene	130	130		9.8	3.1	10	TO-15	Total
1,3,5-Trimethylbenzene	32	32		9.8	3.2	10	TO-15	Total
m-Xylene & p-Xylene	60	60		8.7	5.2	10	TO-15	Total
o-Xylene	28	28		8.7	2.6	10	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc. TestAmerica Job ID: H3E060407

Client Sample ID: AOI-09B-AS-OWS-INF (050313) **Lab Sample ID: H3E060407001**

Date Collected: 05/03/13 08:50 **Matrix: Air**

Date Received: 05/04/13 11:10

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**0.70**	**2.2**		0.20	0.056		05/08/13 08:31	1
Benzyl chloride	ND	ND		0.40	0.078		05/08/13 08:31	1
Bromomethane	ND	ND		0.20	0.032		05/08/13 08:31	1
Carbon tetrachloride	**0.086**	**0.54**	**J**	0.20	0.038		05/08/13 08:31	1
Chlorobenzene	ND	ND		0.20	0.049		05/08/13 08:31	1
Chloroethane	ND	ND		0.20	0.035		05/08/13 08:31	1
Chloroform	ND	ND		0.20	0.038		05/08/13 08:31	1
Chloromethane	**0.71**	**1.5**		0.50	0.16		05/08/13 08:31	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		05/08/13 08:31	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		05/08/13 08:31	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		05/08/13 08:31	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		05/08/13 08:31	1
Dichlorodifluoromethane	**0.46**	**2.3**		0.20	0.068		05/08/13 08:31	1
1,1-Dichloroethane	ND	ND		0.20	0.026		05/08/13 08:31	1
1,2-Dichloroethane	ND	ND		0.20	0.047		05/08/13 08:31	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		05/08/13 08:31	1
1,1-Dichloroethene	ND	ND		0.20	0.034		05/08/13 08:31	1
1,2-Dichloropropane	ND	ND		0.20	0.052		05/08/13 08:31	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		05/08/13 08:31	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		05/08/13 08:31	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		05/08/13 08:31	1
Ethylbenzene	**2.9**	**13**		0.20	0.068		05/08/13 08:31	1
Hexachlorobutadiene	ND	ND		1.0	0.078		05/08/13 08:31	1
Methylcyclohexane	**14**	**58**		0.20	0.20		05/08/13 08:31	1
Methylene chloride	**0.18**	**0.63**	**J**	0.50	0.045		05/08/13 08:31	1
Styrene	ND	ND		0.20	0.058		05/08/13 08:31	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		05/08/13 08:31	1
Tetrachloroethene	ND	ND		0.20	0.040		05/08/13 08:31	1
Toluene	**5.0**	**19**		0.20	0.054		05/08/13 08:31	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		05/08/13 08:31	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		05/08/13 08:31	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		05/08/13 08:31	1
Trichloroethene	ND	ND		0.20	0.036		05/08/13 08:31	1
Trichlorofluoromethane	**0.22**	**1.2**		0.20	0.024		05/08/13 08:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.062**	**0.47**	**J**	0.20	0.031		05/08/13 08:31	1
1,2,4-Trimethylbenzene	**8.1**	**40**		0.20	0.063		05/08/13 08:31	1
1,3,5-Trimethylbenzene	**2.2**	**11**		0.20	0.065		05/08/13 08:31	1
Vinyl chloride	ND	ND		0.20	0.071		05/08/13 08:31	1
m-Xylene & p-Xylene	**11**	**48**		0.20	0.12		05/08/13 08:31	1
o-Xylene	**4.0**	**17**		0.20	0.061		05/08/13 08:31	1

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**2.2**	**2.2**		0.64	0.18		05/08/13 08:31	1
Benzyl chloride	ND	ND		2.1	0.40		05/08/13 08:31	1
Bromomethane	ND	ND		0.78	0.12		05/08/13 08:31	1
Carbon tetrachloride	**0.54**	**0.54**	**J**	1.3	0.24		05/08/13 08:31	1
Chlorobenzene	ND	ND		0.92	0.23		05/08/13 08:31	1
Chloroethane	ND	ND		0.53	0.092		05/08/13 08:31	1
Chloroform	ND	ND		0.98	0.19		05/08/13 08:31	1

Client Sample ID: AOI-09B-AS-OWS-INF (050313) **Lab Sample ID: H3E060407001**

Date Collected: 05/03/13 08:50 **Matrix: Air**

Date Received: 05/04/13 11:10

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloromethane	**1.5**	**1.5**		1.0	0.33		05/08/13 08:31	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		05/08/13 08:31	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		05/08/13 08:31	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		05/08/13 08:31	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		05/08/13 08:31	1
Dichlorodifluoromethane	**2.3**	**2.3**		0.99	0.34		05/08/13 08:31	1
1,1-Dichloroethane	ND	ND		0.81	0.11		05/08/13 08:31	1
1,2-Dichloroethane	ND	ND		0.81	0.19		05/08/13 08:31	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		05/08/13 08:31	1
1,1-Dichloroethene	ND	ND		0.79	0.13		05/08/13 08:31	1
1,2-Dichloropropane	ND	ND		0.92	0.24		05/08/13 08:31	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		05/08/13 08:31	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		05/08/13 08:31	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		05/08/13 08:31	1
Ethylbenzene	**13**	**13**		0.87	0.30		05/08/13 08:31	1
Hexachlorobutadiene	ND	ND		11	0.83		05/08/13 08:31	1
Methylcyclohexane	**58**	**58**		0.80	0.80		05/08/13 08:31	1
Methylene chloride	**0.63**	**0.63**	**J**	1.7	0.16		05/08/13 08:31	1
Styrene	ND	ND		0.85	0.25		05/08/13 08:31	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		05/08/13 08:31	1
Tetrachloroethene	ND	ND		1.4	0.27		05/08/13 08:31	1
Toluene	**19**	**19**		0.75	0.20		05/08/13 08:31	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		05/08/13 08:31	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		05/08/13 08:31	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		05/08/13 08:31	1
Trichloroethene	ND	ND		1.1	0.19		05/08/13 08:31	1
Trichlorofluoromethane	**1.2**	**1.2**		1.1	0.13		05/08/13 08:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.47**	**0.47**	**J**	1.5	0.24		05/08/13 08:31	1
1,2,4-Trimethylbenzene	**40**	**40**		0.98	0.31		05/08/13 08:31	1
1,3,5-Trimethylbenzene	**11**	**11**		0.98	0.32		05/08/13 08:31	1
Vinyl chloride	ND	ND		0.51	0.18		05/08/13 08:31	1
m-Xylene & p-Xylene	**48**	**48**		0.87	0.52		05/08/13 08:31	1
o-Xylene	**17**	**17**		0.87	0.26		05/08/13 08:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*60 - 140*		*05/08/13 08:31*	*1*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppm v/v	Result	Qualifier	RL ppm v/v	MDL ppm v/v	Prepared	Analyzed	Dil Fac
GRO (C5-C10)	ND		LW	3.1			05/10/13 22:07	1.71
TPH (as Gasoline)	ND			3.1			05/10/13 22:07	1.71

Client Sample ID: AOI-09B-SVE-INF (050313) **Lab Sample ID: H3E060407002**

Date Collected: 05/03/13 09:05 **Matrix: Air**

Date Received: 05/04/13 11:10

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**220**	**690**		2.0	0.56		05/07/13 18:39	10
Benzyl chloride	ND	ND		4.0	0.78		05/07/13 18:39	10
Bromomethane	ND	ND		2.0	0.32		05/07/13 18:39	10
Carbon tetrachloride	ND	ND		2.0	0.38		05/07/13 18:39	10
Chlorobenzene	ND	ND		2.0	0.49		05/07/13 18:39	10
Chloroethane	ND	ND		2.0	0.35		05/07/13 18:39	10
Chloroform	ND	ND		2.0	0.38		05/07/13 18:39	10
Chloromethane	ND	ND		5.0	1.6		05/07/13 18:39	10
1,2-Dibromoethane (EDB)	ND	ND		2.0	0.44		05/07/13 18:39	10
1,2-Dichlorobenzene	ND	ND		2.0	0.70		05/07/13 18:39	10
1,3-Dichlorobenzene	ND	ND		2.0	0.65		05/07/13 18:39	10
1,4-Dichlorobenzene	ND	ND		2.0	0.64		05/07/13 18:39	10
Dichlorodifluoromethane	**0.73**	**3.6**	**J**	2.0	0.68		05/07/13 18:39	10
1,1-Dichloroethane	ND	ND		2.0	0.26		05/07/13 18:39	10
1,2-Dichloroethane	ND	ND		2.0	0.47		05/07/13 18:39	10
cis-1,2-Dichloroethene	ND	ND		2.0	0.60		05/07/13 18:39	10
1,1-Dichloroethene	ND	ND		2.0	0.34		05/07/13 18:39	10
1,2-Dichloropropane	ND	ND		2.0	0.52		05/07/13 18:39	10
cis-1,3-Dichloropropene	ND	ND		2.0	0.74		05/07/13 18:39	10
trans-1,3-Dichloropropene	ND	ND		2.0	0.48		05/07/13 18:39	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		2.0	0.32		05/07/13 18:39	10
Ethylbenzene	**3.4**	**15**		2.0	0.68		05/07/13 18:39	10
Hexachlorobutadiene	ND	ND		10	0.78		05/07/13 18:39	10
Methylcyclohexane	**29**	**120**		2.0	2.0		05/07/13 18:39	10
Methylene chloride	**4.8**	**17**	**J**	5.0	0.45		05/07/13 18:39	10
Styrene	ND	ND		2.0	0.58		05/07/13 18:39	10
1,1,2,2-Tetrachloroethane	ND	ND		2.0	0.61		05/07/13 18:39	10
Tetrachloroethene	ND	ND		2.0	0.40		05/07/13 18:39	10
Toluene	**5.4**	**20**		2.0	0.54		05/07/13 18:39	10
1,2,4-Trichlorobenzene	ND	ND		10	0.98		05/07/13 18:39	10
1,1,1-Trichloroethane	ND	ND		2.0	0.30		05/07/13 18:39	10
1,1,2-Trichloroethane	ND	ND		2.0	0.54		05/07/13 18:39	10
Trichloroethene	ND	ND		2.0	0.36		05/07/13 18:39	10
Trichlorofluoromethane	**0.31**	**1.8**	**J**	2.0	0.24		05/07/13 18:39	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		2.0	0.31		05/07/13 18:39	10
1,2,4-Trimethylbenzene	**26**	**130**		2.0	0.63		05/07/13 18:39	10
1,3,5-Trimethylbenzene	**6.6**	**32**		2.0	0.65		05/07/13 18:39	10
Vinyl chloride	ND	ND		2.0	0.71		05/07/13 18:39	10
m-Xylene & p-Xylene	**14**	**60**		2.0	1.2		05/07/13 18:39	10
o-Xylene	**6.4**	**28**		2.0	0.61		05/07/13 18:39	10

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**690**	**690**		6.4	1.8		05/07/13 18:39	10
Benzyl chloride	ND	ND		21	4.0		05/07/13 18:39	10
Bromomethane	ND	ND		7.8	1.2		05/07/13 18:39	10
Carbon tetrachloride	ND	ND		13	2.4		05/07/13 18:39	10
Chlorobenzene	ND	ND		9.2	2.3		05/07/13 18:39	10
Chloroethane	ND	ND		5.3	0.92		05/07/13 18:39	10
Chloroform	ND	ND		9.8	1.9		05/07/13 18:39	10

Client: ARCADIS U.S., Inc. TestAmerica Job ID: H3E060407

Client Sample ID: AOI-09B-SVE-INF (050313) **Lab Sample ID: H3E060407002**

Date Collected: 05/03/13 09:05 **Matrix: Air**

Date Received: 05/04/13 11:10

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloromethane	ND	ND		10	3.3		05/07/13 18:39	10
1,2-Dibromoethane (EDB)	ND	ND		15	3.4		05/07/13 18:39	10
1,2-Dichlorobenzene	ND	ND		12	4.2		05/07/13 18:39	10
1,3-Dichlorobenzene	ND	ND		12	3.9		05/07/13 18:39	10
1,4-Dichlorobenzene	ND	ND		12	3.8		05/07/13 18:39	10
Dichlorodifluoromethane	**3.6**	**3.6**	**J**	9.9	3.4		05/07/13 18:39	10
1,1-Dichloroethane	ND	ND		8.1	1.1		05/07/13 18:39	10
1,2-Dichloroethane	ND	ND		8.1	1.9		05/07/13 18:39	10
cis-1,2-Dichloroethene	ND	ND		7.9	2.4		05/07/13 18:39	10
1,1-Dichloroethene	ND	ND		7.9	1.3		05/07/13 18:39	10
1,2-Dichloropropane	ND	ND		9.2	2.4		05/07/13 18:39	10
cis-1,3-Dichloropropene	ND	ND		9.1	3.4		05/07/13 18:39	10
trans-1,3-Dichloropropene	ND	ND		9.1	2.2		05/07/13 18:39	10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		14	2.2		05/07/13 18:39	10
Ethylbenzene	**15**	**15**		8.7	3.0		05/07/13 18:39	10
Hexachlorobutadiene	ND	ND		110	8.3		05/07/13 18:39	10
Methylcyclohexane	**120**	**120**		8.0	8.0		05/07/13 18:39	10
Methylene chloride	**17**	**17**	**J**	17	1.6		05/07/13 18:39	10
Styrene	ND	ND		8.5	2.5		05/07/13 18:39	10
1,1,2,2-Tetrachloroethane	ND	ND		14	4.2		05/07/13 18:39	10
Tetrachloroethene	ND	ND		14	2.7		05/07/13 18:39	10
Toluene	**20**	**20**		7.5	2.0		05/07/13 18:39	10
1,2,4-Trichlorobenzene	ND	ND		74	7.3		05/07/13 18:39	10
1,1,1-Trichloroethane	ND	ND		11	1.6		05/07/13 18:39	10
1,1,2-Trichloroethane	ND	ND		11	2.9		05/07/13 18:39	10
Trichloroethene	ND	ND		11	1.9		05/07/13 18:39	10
Trichlorofluoromethane	**1.8**	**1.8**	**J**	11	1.3		05/07/13 18:39	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		15	2.4		05/07/13 18:39	10
1,2,4-Trimethylbenzene	**130**	**130**		9.8	3.1		05/07/13 18:39	10
1,3,5-Trimethylbenzene	**32**	**32**		9.8	3.2		05/07/13 18:39	10
Vinyl chloride	ND	ND		5.1	1.8		05/07/13 18:39	10
m-Xylene & p-Xylene	**60**	**60**		8.7	5.2		05/07/13 18:39	10
o-Xylene	**28**	**28**		8.7	2.6		05/07/13 18:39	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*60 - 140*		*05/07/13 18:39*	*10*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppm v/v	Result	Qualifier	RL ppm v/v	MDL ppm v/v	Prepared	Analyzed	Dil Fac
GRO (C5-C10)	ND		LW	4.3			05/10/13 22:35	2.37
TPH (as Gasoline)	ND			4.3			05/10/13 22:35	2.37

Surrogate Summary

Client: ARCADIS U.S., Inc. TestAmerica Job ID: H3E060407

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(60-140)
H3E060407001	AOI-09B-AS-OWS-INF (050313)	103
H3E060407002	AOI-09B-SVE-INF (050313)	100
H3E070000079B	Method Blank	95
H3E070000079C	Lab Control Sample	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3E070000079B **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total**
Analysis Batch: 3127079

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		05/07/13 15:01	1
Benzyl chloride	ND	ND		0.40	0.078		05/07/13 15:01	1
Bromomethane	ND	ND		0.20	0.032		05/07/13 15:01	1
Carbon tetrachloride	ND	ND		0.20	0.038		05/07/13 15:01	1
Chlorobenzene	ND	ND		0.20	0.049		05/07/13 15:01	1
Chloroethane	ND	ND		0.20	0.035		05/07/13 15:01	1
Chloroform	ND	ND		0.20	0.038		05/07/13 15:01	1
Chloromethane	ND	ND		0.50	0.16		05/07/13 15:01	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		05/07/13 15:01	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		05/07/13 15:01	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		05/07/13 15:01	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		05/07/13 15:01	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		05/07/13 15:01	1
1,1-Dichloroethane	ND	ND		0.20	0.026		05/07/13 15:01	1
1,2-Dichloroethane	ND	ND		0.20	0.047		05/07/13 15:01	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		05/07/13 15:01	1
1,1-Dichloroethene	ND	ND		0.20	0.034		05/07/13 15:01	1
1,2-Dichloropropane	ND	ND		0.20	0.052		05/07/13 15:01	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		05/07/13 15:01	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		05/07/13 15:01	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		05/07/13 15:01	1
Ethylbenzene	ND	ND		0.20	0.068		05/07/13 15:01	1
Hexachlorobutadiene	ND	ND		1.0	0.078		05/07/13 15:01	1
Methylcyclohexane	ND	ND		0.20	0.20		05/07/13 15:01	1
Methylene chloride	ND	0.11		0.50	0.045		05/07/13 15:01	1
Styrene	ND	ND		0.20	0.058		05/07/13 15:01	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		05/07/13 15:01	1
Tetrachloroethene	ND	ND		0.20	0.040		05/07/13 15:01	1
Toluene	ND	ND		0.20	0.054		05/07/13 15:01	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		05/07/13 15:01	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		05/07/13 15:01	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		05/07/13 15:01	1
Trichloroethene	ND	ND		0.20	0.036		05/07/13 15:01	1
Trichlorofluoromethane	ND	ND		0.20	0.024		05/07/13 15:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		05/07/13 15:01	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		05/07/13 15:01	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		05/07/13 15:01	1
Vinyl chloride	ND	ND		0.20	0.071		05/07/13 15:01	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		05/07/13 15:01	1
o-Xylene	ND	ND		0.20	0.061		05/07/13 15:01	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		05/07/13 15:01	1
Benzyl chloride	ND	ND		2.1	0.40		05/07/13 15:01	1
Bromomethane	ND	ND		0.78	0.12		05/07/13 15:01	1
Carbon tetrachloride	ND	ND		1.3	0.24		05/07/13 15:01	1
Chlorobenzene	ND	ND		0.92	0.23		05/07/13 15:01	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E070000079B **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total**
Analysis Batch: 3127079

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Chloroethane	ND	ND		0.53	0.092		05/07/13 15:01	1
Chloroform	ND	ND		0.98	0.19		05/07/13 15:01	1
Chloromethane	ND	ND		1.0	0.33		05/07/13 15:01	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		05/07/13 15:01	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		05/07/13 15:01	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		05/07/13 15:01	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		05/07/13 15:01	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		05/07/13 15:01	1
1,1-Dichloroethane	ND	ND		0.81	0.11		05/07/13 15:01	1
1,2-Dichloroethane	ND	ND		0.81	0.19		05/07/13 15:01	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		05/07/13 15:01	1
1,1-Dichloroethene	ND	ND		0.79	0.13		05/07/13 15:01	1
1,2-Dichloropropane	ND	ND		0.92	0.24		05/07/13 15:01	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		05/07/13 15:01	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		05/07/13 15:01	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		05/07/13 15:01	1
Ethylbenzene	ND	ND		0.87	0.30		05/07/13 15:01	1
Hexachlorobutadiene	ND	ND		11	0.83		05/07/13 15:01	1
Methylcyclohexane	ND	ND		0.80	0.80		05/07/13 15:01	1
Methylene chloride	0.11	0.11		1.7	0.16		05/07/13 15:01	1
Styrene	ND	ND		0.85	0.25		05/07/13 15:01	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		05/07/13 15:01	1
Tetrachloroethene	ND	ND		1.4	0.27		05/07/13 15:01	1
Toluene	ND	ND		0.75	0.20		05/07/13 15:01	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		05/07/13 15:01	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		05/07/13 15:01	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		05/07/13 15:01	1
Trichloroethene	ND	ND		1.1	0.19		05/07/13 15:01	1
Trichlorofluoromethane	ND	ND		1.1	0.13		05/07/13 15:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		05/07/13 15:01	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		05/07/13 15:01	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		05/07/13 15:01	1
Vinyl chloride	ND	ND		0.51	0.18		05/07/13 15:01	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		05/07/13 15:01	1
o-Xylene	ND	ND		0.87	0.26		05/07/13 15:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*60 - 140*		*05/07/13 15:01*	*1*

Lab Sample ID: H3E070000079C **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total**
Analysis Batch: 3127079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	3.96		ppb(v/v)		79	70 - 130
Benzyl chloride	5.00	4.43		ppb(v/v)		89	70 - 130
Bromomethane	5.00	5.28		ppb(v/v)		106	70 - 130
Carbon tetrachloride	5.00	3.34	a ME	ppb(v/v)		67	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E070000079C **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total**
Analysis Batch: 3127079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	5.00	3.92		ppb(v/v)		78	70 - 130
Chloroethane	5.00	5.44		ppb(v/v)		109	70 - 130
Chloroform	5.00	4.25		ppb(v/v)		85	70 - 130
Chloromethane	5.00	5.26		ppb(v/v)		105	60 - 140
1,2-Dibromoethane (EDB)	5.00	3.89		ppb(v/v)		78	70 - 130
1,2-Dichlorobenzene	5.00	3.81		ppb(v/v)		76	70 - 130
1,3-Dichlorobenzene	5.00	3.77		ppb(v/v)		75	70 - 130
1,4-Dichlorobenzene	5.00	3.73		ppb(v/v)		75	70 - 130
Dichlorodifluoromethane	5.00	5.34		ppb(v/v)		107	60 - 140
1,1-Dichloroethane	5.00	4.48		ppb(v/v)		90	70 - 130
1,2-Dichloroethane	5.00	4.26		ppb(v/v)		85	70 - 130
cis-1,2-Dichloroethene	5.00	4.33		ppb(v/v)		87	70 - 130
1,1-Dichloroethene	5.00	5.09		ppb(v/v)		102	70 - 130
1,2-Dichloropropane	5.00	4.12		ppb(v/v)		82	70 - 130
cis-1,3-Dichloropropene	5.00	4.05		ppb(v/v)		81	70 - 130
trans-1,3-Dichloropropene	5.00	3.92		ppb(v/v)		78	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.61		ppb(v/v)		112	60 - 140
Ethylbenzene	5.00	3.83		ppb(v/v)		77	70 - 130
Hexachlorobutadiene	5.00	3.68		ppb(v/v)		74	60 - 140
Methylcyclohexane	5.00	4.13		ppb(v/v)		83	20 - 180
Methylene chloride	5.00	4.65		ppb(v/v)		93	70 - 130
Styrene	5.00	3.89		ppb(v/v)		78	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.09		ppb(v/v)		82	70 - 130
Tetrachloroethene	5.00	4.08		ppb(v/v)		82	70 - 130
Toluene	5.00	3.74		ppb(v/v)		75	70 - 130
1,2,4-Trichlorobenzene	5.00	3.87		ppb(v/v)		77	60 - 140
1,1,1-Trichloroethane	5.00	4.35		ppb(v/v)		87	70 - 130
1,1,2-Trichloroethane	5.00	3.96		ppb(v/v)		79	70 - 130
Trichloroethene	5.00	4.44		ppb(v/v)		89	70 - 130
Trichlorofluoromethane	5.00	5.29		ppb(v/v)		106	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.89		ppb(v/v)		98	70 - 130
1,2,4-Trimethylbenzene	5.00	4.23		ppb(v/v)		85	70 - 130
1,3,5-Trimethylbenzene	5.00	4.14		ppb(v/v)		83	70 - 130
Vinyl chloride	5.00	5.41		ppb(v/v)		108	70 - 130
m-Xylene & p-Xylene	10.0	7.72		ppb(v/v)		77	70 - 130
o-Xylene	5.00	3.83		ppb(v/v)		77	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	12.6		ug/m3		79	70 - 130
Benzyl chloride	25.9	22.9		ug/m3		89	70 - 130
Bromomethane	19.4	20.5		ug/m3		106	70 - 130
Carbon tetrachloride	31.5	21.0	a ME	ug/m3		67	70 - 130
Chlorobenzene	23.0	18.0		ug/m3		78	70 - 130
Chloroethane	13.2	14.3		ug/m3		109	70 - 130
Chloroform	24.4	20.7		ug/m3		85	70 - 130
Chloromethane	10.3	10.9		ug/m3		105	60 - 140
1,2-Dibromoethane (EDB)	38.4	29.9		ug/m3		78	70 - 130
1,2-Dichlorobenzene	30.1	22.9		ug/m3		76	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E070000079C **Client Sample ID: Lab Control Sample**
Matrix: Air **Prep Type: Total**
Analysis Batch: 3127079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	30.1	22.7		ug/m3		75	70 - 130
1,4-Dichlorobenzene	30.1	22.4		ug/m3		75	70 - 130
Dichlorodifluoromethane	24.7	26.4		ug/m3		107	60 - 140
1,1-Dichloroethane	20.2	18.1		ug/m3		90	70 - 130
1,2-Dichloroethane	20.2	17.2		ug/m3		85	70 - 130
cis-1,2-Dichloroethene	19.8	17.2		ug/m3		87	70 - 130
1,1-Dichloroethene	19.8	20.2		ug/m3		102	70 - 130
1,2-Dichloropropane	23.1	19.0		ug/m3		82	70 - 130
cis-1,3-Dichloropropene	22.7	18.4		ug/m3		81	70 - 130
trans-1,3-Dichloropropene	22.7	17.8		ug/m3		78	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	39.2		ug/m3		112	60 - 140
Ethylbenzene	21.7	16.6		ug/m3		77	70 - 130
Hexachlorobutadiene	53.3	39.3		ug/m3		74	60 - 140
Methylcyclohexane	20.1	16.6		ug/m3		83	20 - 180
Methylene chloride	17.4	16.1		ug/m3		93	70 - 130
Styrene	21.3	16.6		ug/m3		78	70 - 130
1,1,2,2-Tetrachloroethane	34.3	28.1		ug/m3		82	70 - 130
Tetrachloroethene	33.9	27.6		ug/m3		82	70 - 130
Toluene	18.8	14.1		ug/m3		75	70 - 130
1,2,4-Trichlorobenzene	37.1	28.7		ug/m3		77	60 - 140
1,1,1-Trichloroethane	27.3	23.7		ug/m3		87	70 - 130
1,1,2-Trichloroethane	27.3	21.6		ug/m3		79	70 - 130
Trichloroethene	26.9	23.9		ug/m3		89	70 - 130
Trichlorofluoromethane	28.1	29.7		ug/m3		106	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	37.5		ug/m3		98	70 - 130
1,2,4-Trimethylbenzene	24.6	20.8		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	24.6	20.4		ug/m3		83	70 - 130
Vinyl chloride	12.8	13.8		ug/m3		108	70 - 130
m-Xylene & p-Xylene	43.4	33.5		ug/m3		77	70 - 130
o-Xylene	21.7	16.6		ug/m3		77	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 340-4733/8 **Client Sample ID: Method Blank**
Matrix: Air **Prep Type: Total/NA**
Analysis Batch: 4733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C5-C10)	ND	LW	1.8		ppm v/v			05/10/13 14:12	1
TPH (as Gasoline)	ND		1.8		ppm v/v			05/10/13 14:12	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: LCS 340-4733/4
Matrix: Air
Analysis Batch: 4733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH (as Gasoline)			31.8	29.4		ppm v/v		92	80 - 131		

Lab Sample ID: LCSD 340-4733/5
Matrix: Air
Analysis Batch: 4733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH (as Gasoline)			31.8	29.8		ppm v/v		94	80 - 131	1	20

QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: H3E060407

GC/MS VOA

Analysis Batch: 3127079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3E060407001	AOI-09B-AS-OWS-INF (050313)	Total	Air	TO-15	
H3E060407002	AOI-09B-SVE-INF (050313)	Total	Air	TO-15	
H3E070000079B	Method Blank	Total	Air	TO-15	
H3E070000079C	Lab Control Sample	Total	Air	TO-15	

Air - GC VOA

Analysis Batch: 4733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3E060407001	AOI-09B-AS-OWS-INF (050313)	Total/NA	Air	TO3	
H3E060407002	AOI-09B-SVE-INF (050313)	Total/NA	Air	TO3	
LCS 340-4733/4	Lab Control Sample	Total/NA	Air	TO3	
LCSD 340-4733/5	Lab Control Sample Dup	Total/NA	Air	TO3	
MB 340-4733/8	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client Sample ID: AOI-09B-AS-OWS-INF (050313)

Lab Sample ID: H3E060407001

Date Collected: 05/03/13 08:50

Matrix: Air

Date Received: 05/04/13 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		1	3127079	05/08/13 08:31	AB	TAL KNX
Total/NA	Analysis	TO3		1.71	4733	05/10/13 22:07	JGA	TAL CM
Total/NA	Analysis	TO3		1.71	4733	05/10/13 22:07	JGA	TAL CM

Client Sample ID: AOI-09B-SVE-INF (050313)

Lab Sample ID: H3E060407002

Date Collected: 05/03/13 09:05

Matrix: Air

Date Received: 05/04/13 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		10	3127079	05/07/13 18:39	AB	TAL KNX
Total/NA	Analysis	TO3		2.37	4733	05/10/13 22:35	JGA	TAL CM
Total/NA	Analysis	TO3		2.37	4733	05/10/13 22:35	JGA	TAL CM

Laboratory References:

TAL CM = TestAmerica Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626, TEL (714)258-8610

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc. TestAmerica Job ID: H3E060407

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-13
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-13
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	06-30-13
Nevada	State Program	9	TN00009	07-31-13
New Jersey	NELAP	2	TN001	06-30-13
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-13
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-30-13
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-13
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-13
USDA	Federal		P330-11-00035	01-20-14
Utah	NELAP	8	QUAN3	06-30-13
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-13
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-13

Laboratory: TestAmerica Costa Mesa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0727	02-09-14
Florida	NELAP	4	E87652	06-30-13
L-A-B	DoD ELAP		L2273	11-09-13
Louisiana	NELAP	6	01948	06-30-13
Oregon	NELAP	10	CA200013	07-19-13
Utah	NELAP	8	CA000032012-1	06-30-13
Washington	State Program	10	C579	11-29-13

Method Summary

Client: ARCADIS U.S., Inc. TestAmerica Job ID: H3E060407

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL CM

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL CM = TestAmerica Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626, TEL (714)258-8610

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: H3E060407

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
H3E060407001	AOI-09B-AS-OWS-INF (050313)	Air	05/03/13 08:50	05/04/13 11:10
H3E060407002	AOI-09B-SVE-INF (050313)	Air	05/03/13 09:05	05/04/13 11:10

Chain of Custody Record

H3E060107

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	TONY MAFFEO	5/3/13	104294
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
28350 CABOT DR SUITE 500	248.994.2272	—	
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
NOVI / MI / 48377	D. LAWRENCE	—	
Project Name and Location (State)	**Carrier/Waybill Number**		
RACER DUTCH - FLINT, MI			
Contract/Purchase Order/Quote No.			
B00641410.2013.05008 (2)			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): X – TO-15 (Target List) (CS-CID)	-TO-15 SIM (Methane, Ethane, As Req'd)	Special Instructions/ Conditions of Receipt
1409 AOI-09B-AS-0103-INF(050313)	5/3/13	0850	✓				X						X	X	
1370 AOI-09B-SVE-INF(050313)	5/3/13	0905	✓				X						X	X	Recd temp Ambient
															Custody Seals Intact
															D.D.F 5-4-13
															Fedex #
															9044 0670 7047
															Recd 1-box
															& 2-SUMMAS

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.		5/3/13	1100		5-3-13	1136
2.		5/3/13	1337		5-4-13	1110
3.						

Comments
KNOXVILLE TN LAB

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

5/20/2013

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 440-160407

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 91261 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 5-6-13

QA026R23.doc, 022812

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3E060407*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Can or Tedlar bag prep Time	Baro ID B2 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID___ Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
5/6/13	1455	28.69	M0RAR	1409 ✓	-9.8	+1.5												10518
↓	↓	↓	M0RAT	1370 ✓	-5.8	–												↓

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3E130402
Client Project/Site: B0064410.2013.01500
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attn: Andrea Krevinghaus

Authorized for release by:
5/31/2013 4:59:30 PM

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 6
Client Sample Results 8
Surrogate Summary 12
QC Sample Results 13
QC Association Summary 18
Lab Chronicle 19
Certification Summary 20
Method Summary 22
Sample Summary 23
Chain of Custody 24
Receipt Checklists 25

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated result. Result is less than RL.

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3E130402

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Subcontract

The following analyses were performed by the TestAmerica Burlington Laboratory (NELAP Accrediting Authority: NJDEP; Lab ID VT972), 30 Community Drive, Suite 11, South Burlington, VT 05403, (802) 660-1990, William Cicero, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Quantitation for methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3E130402

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: Racer Buick City

Report Number: 200-16634-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 05/24/2013; the samples arrived in good condition.

TPH GRO
Samples AOI-09B-SVE-INF(051013) and AOI-09B-AS-OWS(051013) were analyzed for TPH GRO in accordance with EPA Method TO-3. The samples were analyzed on 05/24/2013 and 05/25/2013.

Samples AOI-09B-SVE-INF(051013)[45X] and AOI-09B-AS-OWS(051013)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The analysis of sample AOI-09B-SVE-INF(051013) yielded internal standard reponses that were outside control criteria due to the nature of the sample matrix.

The canister dilution information used for calculation of results was based on information provided by TestAmerica Knoxville.

No difficulties were encountered during the TVOC analyses.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Client Sample ID: AOI-09B-AS-OWS(051013) — Lab Sample ID: 200-16634-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	140		23	23	ppb v/v	1.64		TO3	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	550		94	94	ug/m3	1.64		TO3	Total/NA

Client Sample ID: AOI-09B-SVE-INF(051013) — Lab Sample ID: H3E130402001

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	460		18	5.0	ppb(v/v)	89.6		TO-15	Total
Ethylbenzene	440		18	6.1	ppb(v/v)	89.6		TO-15	Total
Methylcyclohexane	3200		18	18	ppb(v/v)	89.6		TO-15	Total
Methylene chloride	18	J	45	4.0	ppb(v/v)	89.6		TO-15	Total
Toluene	980		18	4.8	ppb(v/v)	89.6		TO-15	Total
1,2,4-Trimethylbenzene	320		18	5.6	ppb(v/v)	89.6		TO-15	Total
1,3,5-Trimethylbenzene	87		18	5.8	ppb(v/v)	89.6		TO-15	Total
m-Xylene & p-Xylene	1100		18	11	ppb(v/v)	89.6		TO-15	Total
o-Xylene	320		18	5.5	ppb(v/v)	89.6		TO-15	Total

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	27000		630	630	ppb v/v	44.8		TO3	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1500		57	16	ug/m3	89.6		TO-15	Total
Ethylbenzene	1900		78	26	ug/m3	89.6		TO-15	Total
Methylcyclohexane	13000		72	72	ug/m3	89.6		TO-15	Total
Methylene chloride	63	J	160	14	ug/m3	89.6		TO-15	Total
Toluene	3700		68	18	ug/m3	89.6		TO-15	Total
1,2,4-Trimethylbenzene	1500		88	28	ug/m3	89.6		TO-15	Total
1,3,5-Trimethylbenzene	430		88	29	ug/m3	89.6		TO-15	Total
m-Xylene & p-Xylene	4900		78	47	ug/m3	89.6		TO-15	Total
o-Xylene	1400		78	24	ug/m3	89.6		TO-15	Total

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	110000		2600	2600	ug/m3	44.8		TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF(051013) — Lab Sample ID: H3E130402002

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.32		0.20	0.056	ppb(v/v)	1		TO-15	Total
Carbon tetrachloride	0.075	J	0.20	0.038	ppb(v/v)	1		TO-15	Total
Chloromethane	0.52		0.50	0.16	ppb(v/v)	1		TO-15	Total
Dichlorodifluoromethane	0.41		0.20	0.068	ppb(v/v)	1		TO-15	Total
Ethylbenzene	1.4		0.20	0.068	ppb(v/v)	1		TO-15	Total
Methylcyclohexane	1.4		0.20	0.20	ppb(v/v)	1		TO-15	Total
Methylene chloride	0.29	J	0.50	0.045	ppb(v/v)	1		TO-15	Total
Toluene	1.3		0.20	0.054	ppb(v/v)	1		TO-15	Total
Trichlorofluoromethane	0.20		0.20	0.024	ppb(v/v)	1		TO-15	Total
1,1,2-Trichloro-1,2,2-trifluoroethane	0.055	J	0.20	0.031	ppb(v/v)	1		TO-15	Total
1,2,4-Trimethylbenzene	8.3		0.20	0.063	ppb(v/v)	1		TO-15	Total
1,3,5-Trimethylbenzene	2.0		0.20	0.065	ppb(v/v)	1		TO-15	Total
m-Xylene & p-Xylene	5.9		0.20	0.12	ppb(v/v)	1		TO-15	Total
o-Xylene	2.7		0.20	0.061	ppb(v/v)	1		TO-15	Total

This Detection Summary does not include radiochemical test results.

Client Sample ID: AOI-09B-AS-OWS-INF(051013) (Continued)

Lab Sample ID: H3E130402002

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.0		0.64	0.18	ug/m3	1		TO-15	Total
Carbon tetrachloride	0.47	J	1.3	0.24	ug/m3	1		TO-15	Total
Chloromethane	1.1		1.0	0.33	ug/m3	1		TO-15	Total
Dichlorodifluoromethane	2.0		0.99	0.34	ug/m3	1		TO-15	Total
Ethylbenzene	5.9		0.87	0.30	ug/m3	1		TO-15	Total
Methylcyclohexane	5.5		0.80	0.80	ug/m3	1		TO-15	Total
Methylene chloride	1.0	J	1.7	0.16	ug/m3	1		TO-15	Total
Toluene	5.0		0.75	0.20	ug/m3	1		TO-15	Total
Trichlorofluoromethane	1.1		1.1	0.13	ug/m3	1		TO-15	Total
1,1,2-Trichloro-1,2,2-trifluoroethane	0.42	J	1.5	0.24	ug/m3	1		TO-15	Total
1,2,4-Trimethylbenzene	41		0.98	0.31	ug/m3	1		TO-15	Total
1,3,5-Trimethylbenzene	9.8		0.98	0.32	ug/m3	1		TO-15	Total
m-Xylene & p-Xylene	25		0.87	0.52	ug/m3	1		TO-15	Total
o-Xylene	12		0.87	0.26	ug/m3	1		TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Client Sample ID: AOI-09B-AS-OWS(051013)

Lab Sample ID: 200-16634-2

Date Collected: 05/10/13 13:30
Matrix: Air
Date Received: 05/24/13 13:10
Sample Container: Summa Canister 6L

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**140**		23	23	ppb v/v			05/25/13 00:47	1.64

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**550**		94	94	ug/m3			05/25/13 00:47	1.64

Client Sample ID: AOI-09B-SVE-INF(051013)

Lab Sample ID: H3E130402001

Date Collected: 05/10/13 13:15
Matrix: Air
Date Received: 05/11/13 10:55

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**460**		18	5.0	ppb(v/v)			05/17/13 05:18	89.6
Benzyl chloride	ND		36	7.0	ppb(v/v)			05/17/13 05:18	89.6
Bromomethane	ND		18	2.9	ppb(v/v)			05/17/13 05:18	89.6
Carbon tetrachloride	ND		18	3.4	ppb(v/v)			05/17/13 05:18	89.6
Chlorobenzene	ND		18	4.4	ppb(v/v)			05/17/13 05:18	89.6
Chloroethane	ND		18	3.1	ppb(v/v)			05/17/13 05:18	89.6
Chloroform	ND		18	3.4	ppb(v/v)			05/17/13 05:18	89.6
Chloromethane	ND		45	14	ppb(v/v)			05/17/13 05:18	89.6
1,2-Dibromoethane (EDB)	ND		18	3.9	ppb(v/v)			05/17/13 05:18	89.6
1,2-Dichlorobenzene	ND		18	6.3	ppb(v/v)			05/17/13 05:18	89.6
1,3-Dichlorobenzene	ND		18	5.8	ppb(v/v)			05/17/13 05:18	89.6
1,4-Dichlorobenzene	ND		18	5.7	ppb(v/v)			05/17/13 05:18	89.6
Dichlorodifluoromethane	ND		18	6.1	ppb(v/v)			05/17/13 05:18	89.6
1,1-Dichloroethane	ND		18	2.3	ppb(v/v)			05/17/13 05:18	89.6
1,2-Dichloroethane	ND		18	4.2	ppb(v/v)			05/17/13 05:18	89.6
cis-1,2-Dichloroethene	ND		18	5.4	ppb(v/v)			05/17/13 05:18	89.6
1,1-Dichloroethene	ND		18	3.0	ppb(v/v)			05/17/13 05:18	89.6
1,2-Dichloropropane	ND		18	4.7	ppb(v/v)			05/17/13 05:18	89.6
cis-1,3-Dichloropropene	ND		18	6.6	ppb(v/v)			05/17/13 05:18	89.6
trans-1,3-Dichloropropene	ND		18	4.3	ppb(v/v)			05/17/13 05:18	89.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		18	2.9	ppb(v/v)			05/17/13 05:18	89.6
Ethylbenzene	**440**		18	6.1	ppb(v/v)			05/17/13 05:18	89.6
Hexachlorobutadiene	ND		90	7.0	ppb(v/v)			05/17/13 05:18	89.6
Methylcyclohexane	**3200**		18	18	ppb(v/v)			05/17/13 05:18	89.6
Methylene chloride	**18**	**J**	45	4.0	ppb(v/v)			05/17/13 05:18	89.6
Styrene	ND		18	5.2	ppb(v/v)			05/17/13 05:18	89.6
1,1,2,2-Tetrachloroethane	ND		18	5.5	ppb(v/v)			05/17/13 05:18	89.6
Tetrachloroethene	ND		18	3.6	ppb(v/v)			05/17/13 05:18	89.6
Toluene	**980**		18	4.8	ppb(v/v)			05/17/13 05:18	89.6
1,2,4-Trichlorobenzene	ND		90	8.8	ppb(v/v)			05/17/13 05:18	89.6
1,1,1-Trichloroethane	ND		18	2.7	ppb(v/v)			05/17/13 05:18	89.6
1,1,2-Trichloroethane	ND		18	4.8	ppb(v/v)			05/17/13 05:18	89.6
Trichloroethene	ND		18	3.2	ppb(v/v)			05/17/13 05:18	89.6
Trichlorofluoromethane	ND		18	2.2	ppb(v/v)			05/17/13 05:18	89.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		18	2.8	ppb(v/v)			05/17/13 05:18	89.6
1,2,4-Trimethylbenzene	**320**		18	5.6	ppb(v/v)			05/17/13 05:18	89.6
1,3,5-Trimethylbenzene	**87**		18	5.8	ppb(v/v)			05/17/13 05:18	89.6
Vinyl chloride	ND		18	6.4	ppb(v/v)			05/17/13 05:18	89.6

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Client Sample ID: AOI-09B-SVE-INF(051013)
Date Collected: 05/10/13 13:15
Date Received: 05/11/13 10:55

Lab Sample ID: H3E130402001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	**1100**		18	11	ppb(v/v)			05/17/13 05:18	89.6
o-Xylene	**320**		18	5.5	ppb(v/v)			05/17/13 05:18	89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1500**		57	16	ug/m3			05/17/13 05:18	89.6
Benzyl chloride	ND		190	36	ug/m3			05/17/13 05:18	89.6
Bromomethane	ND		70	11	ug/m3			05/17/13 05:18	89.6
Carbon tetrachloride	ND		110	21	ug/m3			05/17/13 05:18	89.6
Chlorobenzene	ND		82	20	ug/m3			05/17/13 05:18	89.6
Chloroethane	ND		47	8.3	ug/m3			05/17/13 05:18	89.6
Chloroform	ND		87	17	ug/m3			05/17/13 05:18	89.6
Chloromethane	ND		93	30	ug/m3			05/17/13 05:18	89.6
1,2-Dibromoethane (EDB)	ND		140	30	ug/m3			05/17/13 05:18	89.6
1,2-Dichlorobenzene	ND		110	38	ug/m3			05/17/13 05:18	89.6
1,3-Dichlorobenzene	ND		110	35	ug/m3			05/17/13 05:18	89.6
1,4-Dichlorobenzene	ND		110	34	ug/m3			05/17/13 05:18	89.6
Dichlorodifluoromethane	ND		89	30	ug/m3			05/17/13 05:18	89.6
1,1-Dichloroethane	ND		73	9.4	ug/m3			05/17/13 05:18	89.6
1,2-Dichloroethane	ND		73	17	ug/m3			05/17/13 05:18	89.6
cis-1,2-Dichloroethene	ND		71	21	ug/m3			05/17/13 05:18	89.6
1,1-Dichloroethene	ND		71	12	ug/m3			05/17/13 05:18	89.6
1,2-Dichloropropane	ND		83	22	ug/m3			05/17/13 05:18	89.6
cis-1,3-Dichloropropene	ND		81	30	ug/m3			05/17/13 05:18	89.6
trans-1,3-Dichloropropene	ND		81	20	ug/m3			05/17/13 05:18	89.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		130	20	ug/m3			05/17/13 05:18	89.6
Ethylbenzene	**1900**		78	26	ug/m3			05/17/13 05:18	89.6
Hexachlorobutadiene	ND		960	75	ug/m3			05/17/13 05:18	89.6
Methylcyclohexane	**13000**		72	72	ug/m3			05/17/13 05:18	89.6
Methylene chloride	**63**	**J**	160	14	ug/m3			05/17/13 05:18	89.6
Styrene	ND		76	22	ug/m3			05/17/13 05:18	89.6
1,1,2,2-Tetrachloroethane	ND		120	38	ug/m3			05/17/13 05:18	89.6
Tetrachloroethene	ND		120	24	ug/m3			05/17/13 05:18	89.6
Toluene	**3700**		68	18	ug/m3			05/17/13 05:18	89.6
1,2,4-Trichlorobenzene	ND		660	65	ug/m3			05/17/13 05:18	89.6
1,1,1-Trichloroethane	ND		98	15	ug/m3			05/17/13 05:18	89.6
1,1,2-Trichloroethane	ND		98	26	ug/m3			05/17/13 05:18	89.6
Trichloroethene	ND		96	17	ug/m3			05/17/13 05:18	89.6
Trichlorofluoromethane	ND		100	12	ug/m3			05/17/13 05:18	89.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		140	21	ug/m3			05/17/13 05:18	89.6
1,2,4-Trimethylbenzene	**1500**		88	28	ug/m3			05/17/13 05:18	89.6
1,3,5-Trimethylbenzene	**430**		88	29	ug/m3			05/17/13 05:18	89.6
Vinyl chloride	ND		46	16	ug/m3			05/17/13 05:18	89.6
m-Xylene & p-Xylene	**4900**		78	47	ug/m3			05/17/13 05:18	89.6
o-Xylene	**1400**		78	24	ug/m3			05/17/13 05:18	89.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*60 - 140*		*05/17/13 05:18*	*89.6*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**27000**		630	630	ppb v/v			05/24/13 23:55	44.8

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Client Sample ID: AOI-09B-SVE-INF(051013)

Lab Sample ID: H3E130402001

Date Collected: 05/10/13 13:15
Matrix: Air
Date Received: 05/11/13 10:55
Sample Container: Summa Canister 6L

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	110000		2600	2600	ug/m3			05/24/13 23:55	44.8

Client Sample ID: AOI-09B-AS-OWS-INF(051013)

Lab Sample ID: H3E130402002

Date Collected: 05/10/13 13:30
Matrix: Air
Date Received: 05/11/13 10:55

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.32		0.20	0.056	ppb(v/v)			05/17/13 06:12	1
Benzyl chloride	ND		0.40	0.078	ppb(v/v)			05/17/13 06:12	1
Bromomethane	ND		0.20	0.032	ppb(v/v)			05/17/13 06:12	1
Carbon tetrachloride	0.075	J	0.20	0.038	ppb(v/v)			05/17/13 06:12	1
Chlorobenzene	ND		0.20	0.049	ppb(v/v)			05/17/13 06:12	1
Chloroethane	ND		0.20	0.035	ppb(v/v)			05/17/13 06:12	1
Chloroform	ND		0.20	0.038	ppb(v/v)			05/17/13 06:12	1
Chloromethane	0.52		0.50	0.16	ppb(v/v)			05/17/13 06:12	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb(v/v)			05/17/13 06:12	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb(v/v)			05/17/13 06:12	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb(v/v)			05/17/13 06:12	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb(v/v)			05/17/13 06:12	1
Dichlorodifluoromethane	0.41		0.20	0.068	ppb(v/v)			05/17/13 06:12	1
1,1-Dichloroethane	ND		0.20	0.026	ppb(v/v)			05/17/13 06:12	1
1,2-Dichloroethane	ND		0.20	0.047	ppb(v/v)			05/17/13 06:12	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb(v/v)			05/17/13 06:12	1
1,1-Dichloroethene	ND		0.20	0.034	ppb(v/v)			05/17/13 06:12	1
1,2-Dichloropropane	ND		0.20	0.052	ppb(v/v)			05/17/13 06:12	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb(v/v)			05/17/13 06:12	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb(v/v)			05/17/13 06:12	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb(v/v)			05/17/13 06:12	1
Ethylbenzene	1.4		0.20	0.068	ppb(v/v)			05/17/13 06:12	1
Hexachlorobutadiene	ND		1.0	0.078	ppb(v/v)			05/17/13 06:12	1
Methylcyclohexane	1.4		0.20	0.20	ppb(v/v)			05/17/13 06:12	1
Methylene chloride	0.29	J	0.50	0.045	ppb(v/v)			05/17/13 06:12	1
Styrene	ND		0.20	0.058	ppb(v/v)			05/17/13 06:12	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb(v/v)			05/17/13 06:12	1
Tetrachloroethene	ND		0.20	0.040	ppb(v/v)			05/17/13 06:12	1
Toluene	1.3		0.20	0.054	ppb(v/v)			05/17/13 06:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb(v/v)			05/17/13 06:12	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb(v/v)			05/17/13 06:12	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb(v/v)			05/17/13 06:12	1
Trichloroethene	ND		0.20	0.036	ppb(v/v)			05/17/13 06:12	1
Trichlorofluoromethane	0.20		0.20	0.024	ppb(v/v)			05/17/13 06:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.055	J	0.20	0.031	ppb(v/v)			05/17/13 06:12	1
1,2,4-Trimethylbenzene	8.3		0.20	0.063	ppb(v/v)			05/17/13 06:12	1
1,3,5-Trimethylbenzene	2.0		0.20	0.065	ppb(v/v)			05/17/13 06:12	1
Vinyl chloride	ND		0.20	0.071	ppb(v/v)			05/17/13 06:12	1
m-Xylene & p-Xylene	5.9		0.20	0.12	ppb(v/v)			05/17/13 06:12	1
o-Xylene	2.7		0.20	0.061	ppb(v/v)			05/17/13 06:12	1

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Client Sample ID: AOI-09B-AS-OWS-INF(051013)
Date Collected: 05/10/13 13:30
Date Received: 05/11/13 10:55

Lab Sample ID: H3E130402002
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.0**		0.64	0.18	ug/m3			05/17/13 06:12	1
Benzyl chloride	ND		2.1	0.40	ug/m3			05/17/13 06:12	1
Bromomethane	ND		0.78	0.12	ug/m3			05/17/13 06:12	1
Carbon tetrachloride	**0.47**	**J**	1.3	0.24	ug/m3			05/17/13 06:12	1
Chlorobenzene	ND		0.92	0.23	ug/m3			05/17/13 06:12	1
Chloroethane	ND		0.53	0.092	ug/m3			05/17/13 06:12	1
Chloroform	ND		0.98	0.19	ug/m3			05/17/13 06:12	1
Chloromethane	**1.1**		1.0	0.33	ug/m3			05/17/13 06:12	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			05/17/13 06:12	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			05/17/13 06:12	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			05/17/13 06:12	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			05/17/13 06:12	1
Dichlorodifluoromethane	**2.0**		0.99	0.34	ug/m3			05/17/13 06:12	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			05/17/13 06:12	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			05/17/13 06:12	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			05/17/13 06:12	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			05/17/13 06:12	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			05/17/13 06:12	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			05/17/13 06:12	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			05/17/13 06:12	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			05/17/13 06:12	1
Ethylbenzene	**5.9**		0.87	0.30	ug/m3			05/17/13 06:12	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			05/17/13 06:12	1
Methylcyclohexane	**5.5**		0.80	0.80	ug/m3			05/17/13 06:12	1
Methylene chloride	**1.0**	**J**	1.7	0.16	ug/m3			05/17/13 06:12	1
Styrene	ND		0.85	0.25	ug/m3			05/17/13 06:12	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			05/17/13 06:12	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			05/17/13 06:12	1
Toluene	**5.0**		0.75	0.20	ug/m3			05/17/13 06:12	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			05/17/13 06:12	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			05/17/13 06:12	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			05/17/13 06:12	1
Trichloroethene	ND		1.1	0.19	ug/m3			05/17/13 06:12	1
Trichlorofluoromethane	**1.1**		1.1	0.13	ug/m3			05/17/13 06:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.42**	**J**	1.5	0.24	ug/m3			05/17/13 06:12	1
1,2,4-Trimethylbenzene	**41**		0.98	0.31	ug/m3			05/17/13 06:12	1
1,3,5-Trimethylbenzene	**9.8**		0.98	0.32	ug/m3			05/17/13 06:12	1
Vinyl chloride	ND		0.51	0.18	ug/m3			05/17/13 06:12	1
m-Xylene & p-Xylene	**25**		0.87	0.52	ug/m3			05/17/13 06:12	1
o-Xylene	**12**		0.87	0.26	ug/m3			05/17/13 06:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*60 - 140*		*05/17/13 06:12*	*1*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB								
Lab Sample ID	Client Sample ID	(60-140)								
H3E130402001	AOI-09B-SVE-INF(051013)	103								
H3E130402002	AOI-09B-AS-OWS-INF(051013)	100								
H3E170000024B	Method Blank	94								
H3E170000024C	Lab Control Sample	96								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3E170000024B
Matrix: Air
Analysis Batch: 3137024

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.056	ppb(v/v)			05/16/13 12:03	1
Benzyl chloride	ND		0.40	0.078	ppb(v/v)			05/16/13 12:03	1
Bromomethane	ND		0.20	0.032	ppb(v/v)			05/16/13 12:03	1
Carbon tetrachloride	ND		0.20	0.038	ppb(v/v)			05/16/13 12:03	1
Chlorobenzene	ND		0.20	0.049	ppb(v/v)			05/16/13 12:03	1
Chloroethane	ND		0.20	0.035	ppb(v/v)			05/16/13 12:03	1
Chloroform	ND		0.20	0.038	ppb(v/v)			05/16/13 12:03	1
Chloromethane	ND		0.50	0.16	ppb(v/v)			05/16/13 12:03	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb(v/v)			05/16/13 12:03	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb(v/v)			05/16/13 12:03	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb(v/v)			05/16/13 12:03	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb(v/v)			05/16/13 12:03	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb(v/v)			05/16/13 12:03	1
1,1-Dichloroethane	ND		0.20	0.026	ppb(v/v)			05/16/13 12:03	1
1,2-Dichloroethane	ND		0.20	0.047	ppb(v/v)			05/16/13 12:03	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb(v/v)			05/16/13 12:03	1
1,1-Dichloroethene	ND		0.20	0.034	ppb(v/v)			05/16/13 12:03	1
1,2-Dichloropropane	ND		0.20	0.052	ppb(v/v)			05/16/13 12:03	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb(v/v)			05/16/13 12:03	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb(v/v)			05/16/13 12:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb(v/v)			05/16/13 12:03	1
Ethylbenzene	ND		0.20	0.068	ppb(v/v)			05/16/13 12:03	1
Hexachlorobutadiene	ND		1.0	0.078	ppb(v/v)			05/16/13 12:03	1
Methylcyclohexane	ND		0.20	0.20	ppb(v/v)			05/16/13 12:03	1
Methylene chloride	ND		0.50	0.045	ppb(v/v)			05/16/13 12:03	1
Styrene	ND		0.20	0.058	ppb(v/v)			05/16/13 12:03	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb(v/v)			05/16/13 12:03	1
Tetrachloroethene	ND		0.20	0.040	ppb(v/v)			05/16/13 12:03	1
Toluene	ND		0.20	0.054	ppb(v/v)			05/16/13 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb(v/v)			05/16/13 12:03	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb(v/v)			05/16/13 12:03	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb(v/v)			05/16/13 12:03	1
Trichloroethene	ND		0.20	0.036	ppb(v/v)			05/16/13 12:03	1
Trichlorofluoromethane	ND		0.20	0.024	ppb(v/v)			05/16/13 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb(v/v)			05/16/13 12:03	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb(v/v)			05/16/13 12:03	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb(v/v)			05/16/13 12:03	1
Vinyl chloride	ND		0.20	0.071	ppb(v/v)			05/16/13 12:03	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb(v/v)			05/16/13 12:03	1
o-Xylene	ND		0.20	0.061	ppb(v/v)			05/16/13 12:03	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64	0.18	ug/m3			05/16/13 12:03	1
Benzyl chloride	ND		2.1	0.40	ug/m3			05/16/13 12:03	1
Bromomethane	ND		0.78	0.12	ug/m3			05/16/13 12:03	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			05/16/13 12:03	1
Chlorobenzene	ND		0.92	0.23	ug/m3			05/16/13 12:03	1
Chloroethane	ND		0.53	0.092	ug/m3			05/16/13 12:03	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E170000024B
Matrix: Air
Analysis Batch: 3137024

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.98	0.19	ug/m3			05/16/13 12:03	1
Chloromethane	ND		1.0	0.33	ug/m3			05/16/13 12:03	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			05/16/13 12:03	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			05/16/13 12:03	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			05/16/13 12:03	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			05/16/13 12:03	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			05/16/13 12:03	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			05/16/13 12:03	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			05/16/13 12:03	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			05/16/13 12:03	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			05/16/13 12:03	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			05/16/13 12:03	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			05/16/13 12:03	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			05/16/13 12:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			05/16/13 12:03	1
Ethylbenzene	ND		0.87	0.30	ug/m3			05/16/13 12:03	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			05/16/13 12:03	1
Methylcyclohexane	ND		0.80	0.80	ug/m3			05/16/13 12:03	1
Methylene chloride	0.11		1.7	0.16	ug/m3			05/16/13 12:03	1
Styrene	ND		0.85	0.25	ug/m3			05/16/13 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			05/16/13 12:03	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			05/16/13 12:03	1
Toluene	ND		0.75	0.20	ug/m3			05/16/13 12:03	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			05/16/13 12:03	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			05/16/13 12:03	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			05/16/13 12:03	1
Trichloroethene	ND		1.1	0.19	ug/m3			05/16/13 12:03	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			05/16/13 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			05/16/13 12:03	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			05/16/13 12:03	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			05/16/13 12:03	1
Vinyl chloride	ND		0.51	0.18	ug/m3			05/16/13 12:03	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			05/16/13 12:03	1
o-Xylene	ND		0.87	0.26	ug/m3			05/16/13 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*60 - 140*		*05/16/13 12:03*	*1*

Lab Sample ID: H3E170000024C
Matrix: Air
Analysis Batch: 3137024

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	3.63		ppb(v/v)		73	70 - 130
Benzyl chloride	5.00	5.26		ppb(v/v)		105	70 - 130
Bromomethane	5.00	4.72		ppb(v/v)		94	70 - 130
Carbon tetrachloride	5.00	5.56		ppb(v/v)		111	70 - 130
Chlorobenzene	5.00	4.18		ppb(v/v)		84	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E170000024C
Matrix: Air
Analysis Batch: 3137024

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	5.00	4.93		ppb(v/v)		99	70 - 130
Chloroform	5.00	4.38		ppb(v/v)		88	70 - 130
Chloromethane	5.00	4.89		ppb(v/v)		98	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.06		ppb(v/v)		81	70 - 130
1,2-Dichlorobenzene	5.00	4.47		ppb(v/v)		89	70 - 130
1,3-Dichlorobenzene	5.00	4.31		ppb(v/v)		86	70 - 130
1,4-Dichlorobenzene	5.00	4.32		ppb(v/v)		86	70 - 130
Dichlorodifluoromethane	5.00	4.92		ppb(v/v)		98	60 - 140
1,1-Dichloroethane	5.00	4.49		ppb(v/v)		90	70 - 130
1,2-Dichloroethane	5.00	4.18		ppb(v/v)		84	70 - 130
cis-1,2-Dichloroethene	5.00	4.42		ppb(v/v)		88	70 - 130
1,1-Dichloroethene	5.00	4.89		ppb(v/v)		98	70 - 130
1,2-Dichloropropane	5.00	4.20		ppb(v/v)		84	70 - 130
cis-1,3-Dichloropropene	5.00	4.28		ppb(v/v)		86	70 - 130
trans-1,3-Dichloropropene	5.00	4.49		ppb(v/v)		90	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	4.96		ppb(v/v)		99	60 - 140
Ethylbenzene	5.00	4.46		ppb(v/v)		89	70 - 130
Hexachlorobutadiene	5.00	4.32		ppb(v/v)		86	60 - 140
Methylcyclohexane	5.00	4.46		ppb(v/v)		89	20 - 180
Methylene chloride	5.00	4.72		ppb(v/v)		94	70 - 130
Styrene	5.00	4.50		ppb(v/v)		90	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.77		ppb(v/v)		95	70 - 130
Tetrachloroethene	5.00	4.50		ppb(v/v)		90	70 - 130
Toluene	5.00	4.07		ppb(v/v)		81	70 - 130
1,2,4-Trichlorobenzene	5.00	5.11		ppb(v/v)		102	60 - 140
1,1,1-Trichloroethane	5.00	4.50		ppb(v/v)		90	70 - 130
1,1,2-Trichloroethane	5.00	4.16		ppb(v/v)		83	70 - 130
Trichloroethene	5.00	4.91		ppb(v/v)		98	70 - 130
Trichlorofluoromethane	5.00	5.12		ppb(v/v)		102	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.94		ppb(v/v)		99	70 - 130
1,2,4-Trimethylbenzene	5.00	5.25		ppb(v/v)		105	70 - 130
1,3,5-Trimethylbenzene	5.00	5.12		ppb(v/v)		102	70 - 130
Vinyl chloride	5.00	4.84		ppb(v/v)		97	70 - 130
m-Xylene & p-Xylene	10.0	9.13		ppb(v/v)		91	70 - 130
o-Xylene	5.00	4.60		ppb(v/v)		92	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	11.6		ug/m3		73	70 - 130
Benzyl chloride	25.9	27.2		ug/m3		105	70 - 130
Bromomethane	19.4	18.3		ug/m3		94	70 - 130
Carbon tetrachloride	31.5	35.0		ug/m3		111	70 - 130
Chlorobenzene	23.0	19.2		ug/m3		84	70 - 130
Chloroethane	13.2	13.0		ug/m3		99	70 - 130
Chloroform	24.4	21.4		ug/m3		88	70 - 130
Chloromethane	10.3	10.1		ug/m3		98	60 - 140
1,2-Dibromoethane (EDB)	38.4	31.2		ug/m3		81	70 - 130
1,2-Dichlorobenzene	30.1	26.9		ug/m3		89	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E170000024C
Matrix: Air
Analysis Batch: 3137024

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	30.1	25.9		ug/m3		86	70 - 130
1,4-Dichlorobenzene	30.1	26.0		ug/m3		86	70 - 130
Dichlorodifluoromethane	24.7	24.3		ug/m3		98	60 - 140
1,1-Dichloroethane	20.2	18.2		ug/m3		90	70 - 130
1,2-Dichloroethane	20.2	16.9		ug/m3		84	70 - 130
cis-1,2-Dichloroethene	19.8	17.5		ug/m3		88	70 - 130
1,1-Dichloroethene	19.8	19.4		ug/m3		98	70 - 130
1,2-Dichloropropane	23.1	19.4		ug/m3		84	70 - 130
cis-1,3-Dichloropropene	22.7	19.4		ug/m3		86	70 - 130
trans-1,3-Dichloropropene	22.7	20.4		ug/m3		90	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	34.7		ug/m3		99	60 - 140
Ethylbenzene	21.7	19.4		ug/m3		89	70 - 130
Hexachlorobutadiene	53.3	46.1		ug/m3		86	60 - 140
Methylcyclohexane	20.1	17.9		ug/m3		89	20 - 180
Methylene chloride	17.4	16.4		ug/m3		94	70 - 130
Styrene	21.3	19.2		ug/m3		90	70 - 130
1,1,2,2-Tetrachloroethane	34.3	32.8		ug/m3		95	70 - 130
Tetrachloroethene	33.9	30.5		ug/m3		90	70 - 130
Toluene	18.8	15.3		ug/m3		81	70 - 130
1,2,4-Trichlorobenzene	37.1	37.9		ug/m3		102	60 - 140
1,1,1-Trichloroethane	27.3	24.6		ug/m3		90	70 - 130
1,1,2-Trichloroethane	27.3	22.7		ug/m3		83	70 - 130
Trichloroethene	26.9	26.4		ug/m3		98	70 - 130
Trichlorofluoromethane	28.1	28.8		ug/m3		102	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	37.8		ug/m3		99	70 - 130
1,2,4-Trimethylbenzene	24.6	25.8		ug/m3		105	70 - 130
1,3,5-Trimethylbenzene	24.6	25.2		ug/m3		102	70 - 130
Vinyl chloride	12.8	12.4		ug/m3		97	70 - 130
m-Xylene & p-Xylene	43.4	39.6		ug/m3		91	70 - 130
o-Xylene	21.7	20.0		ug/m3		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-56254/3
Matrix: Air
Analysis Batch: 56254

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	14	U	14	14	ppb v/v			05/24/13 11:39	1

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	57	U	57	57	ug/m3			05/24/13 11:39	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: LCS 200-56254/2
Matrix: Air
Analysis Batch: 56254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	10.0	14	U	ppb v/v		107	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	41	57	U	ug/m3		107	70 - 130

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

GC/MS VOA

Analysis Batch: 3137024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3E130402001	AOI-09B-SVE-INF(051013)	Total	Air	TO-15	
H3E130402002	AOI-09B-AS-OWS-INF(051013)	Total	Air	TO-15	
H3E170000024B	Method Blank	Total	Air	TO-15	
H3E170000024C	Lab Control Sample	Total	Air	TO-15	

Air - GC/MS VOA

Analysis Batch: 56254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-16634-2	AOI-09B-AS-OWS(051013)	Total/NA	Air	TO3	
H3E130402001	AOI-09B-SVE-INF(051013)	Total/NA	Air	TO3	
LCS 200-56254/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-56254/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Client Sample ID: AOI-09B-AS-OWS(051013)

Lab Sample ID: 200-16634-2

Date Collected: 05/10/13 13:30

Matrix: Air

Date Received: 05/24/13 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		1.64	56254	05/25/13 00:47	PAD	TAL BUR

Client Sample ID: AOI-09B-SVE-INF(051013)

Lab Sample ID: H3E130402001

Date Collected: 05/10/13 13:15

Matrix: Air

Date Received: 05/11/13 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		89.6	3137024	05/17/13 05:18	HT	TAL KNX
Total/NA	Analysis	TO3		44.8	56254	05/24/13 23:55	PAD	TAL BUR

Client Sample ID: AOI-09B-AS-OWS-INF(051013)

Lab Sample ID: H3E130402002

Date Collected: 05/10/13 13:30

Matrix: Air

Date Received: 05/11/13 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		1	3137024	05/17/13 06:12	HT	TAL KNX

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-13
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-13
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	06-30-13
Nevada	State Program	9	TN00009	07-31-13
New Jersey	NELAP	2	TN001	06-30-13
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-13
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-30-13
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-13
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-13
USDA	Federal		P330-11-00035	01-20-14
Utah	NELAP	8	QUAN3	06-30-13
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-13
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-13

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-13
L-A-B	DoD ELAP		L2336	10-26-13
Louisiana	NELAP	6	176292	06-30-13
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-13
New York	NELAP	2	10391	04-01-14
Pennsylvania	NELAP	3	68-00489	04-30-14

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13
Virginia	NELAP	3	460209	12-14-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3E130402

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-16634-2	AOI-09B-AS-OWS(051013)	Air	05/10/13 13:30	05/24/13 13:10
H3E130402001	AOI-09B-SVE-INF(051013)	Air	05/10/13 13:15	05/11/13 10:55
H3E130402002	AOI-09B-AS-OWS-INF(051013)	Air	05/10/13 13:30	05/11/13 10:55

Chain of Custody Record

H3E130402

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	TONY MAFFEO	5/10/13	104274

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
28550 CABOT DR STE 500	248.994.2240		

City	State	Zip Code	Site Contact	Lab Contact
NOVI	MI	48377	TREVOR SWARTHOUT	—

Project Name and Location (State): RACER BUICK CITY FLINT, MI

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.: T. SWARTHOUT B0064410.2013.01500

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TO-3	(Total Vol's)	(C5-C10)	TO-15 w/	Methylcyclohexan	As TIC	Special Instructions/ Conditions of Receipt
A01-09B-SVE-INF(051013)	5/10/13	1315	X				X						X			X			0091
A01-09B-AS-OWS-INF(051013)	5/10/13	1330	X				X						X			X			1495

Rec'd temp Ambient
No custody Seals
D.D.F 5-11-13
Fedex #
9044 0670 7827

Rec'd 1 box
2 Summas

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☒ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify): KNOXVILLE, TN LAB 14 DAY TAT

	Date	Time		Date	Time
1. Relinquished By: [signature]	5/10/13	1530	1. Received By: [signature]	5/10/13	1535
2. Relinquished By: [signature]	5/10/13	1535	2. Received By: David D. Flor	5-11-13	1055
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 430-31402

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 91261 PM Instructions: NA

Sample Receiving Associate: _____ Date: 5-13-13

QA026R23.doc, 022812

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3E180408
Client Project/Site: B0064410.2013.0
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attn: Andrea Krevinghaus

Authorized for release by:
6/6/2013 10:37:52 AM

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 6
Client Sample Results 8
Surrogate Summary 13
QC Sample Results 14
QC Association Summary 23
Lab Chronicle 24
Certification Summary 25
Method Summary 27
Sample Summary 28
Chain of Custody 29
Receipt Checklists 30

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated result. Result is less than RL.

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3E180408

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Subcontract

The following analyses were performed by the TestAmerica Burlington Laboratory (NELAP Accrediting Authority: NJDEP; Lab ID VT972), 30 Community Drive, Suite 11, South Burlington, VT 05403, (802) 660-1990, William Cicero, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Quantitation for methylcyclohexane was previously based on a one-point calibration standard at the reporting limit. Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3E180408

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: Racer Buick City

Report Number: 200-16759-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/31/2013; the samples arrived in good condition.

TPH-GRO

Samples AOI-09B-SVE-INF (051713) and AOI-09B-AS-OWS-INF (051713) were analyzed for TPH-GRO in accordance with EPA Method TO-3. The samples were analyzed on 06/04/2013.

Samples AOI-09B-SVE-INF (051713)[149X] and AOI-09B-AS-OWS-INF (051713)[21X] required dilution prior to analysis. The reporting limits have been adjusted accordingly. The canister dilution information used for calculation of results was based on information provided by TestAmerica Knoxville.

The analyses of sample the samples referenced above yielded internal standard reponses that were outside control criteria due to the nature of the sample matrix.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Client Sample ID: AOI-09B-SVE-INF (051713) — Lab Sample ID: 200-16759-1

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	110000	450000		2100	2100	149	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	450000	450000		8500	8500	149	TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF (051713) — Lab Sample ID: 200-16759-2

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	11000	47000		300	300	21.4	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	47000	47000		1200	1200	21.4	TO3	Total/NA

Client Sample ID: AOI-09B-SVE-INF(051713) — Lab Sample ID: H3E180408001

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	990	3200		120	33	596.6	TO-15	Total
Ethylbenzene	1200	5300		120	41	596.6	TO-15	Total
Methylcyclohexane	13000	51000		120	120	596.6	TO-15	Total
Methylene chloride	36	120	J	300	27	596.6	TO-15	Total
Toluene	2400	9100		120	32	596.6	TO-15	Total
1,2,4-Trimethylbenzene	850	4200		120	38	596.6	TO-15	Total
1,3,5-Trimethylbenzene	270	1300		120	39	596.6	TO-15	Total
m-Xylene & p-Xylene	2900	13000		120	72	596.6	TO-15	Total
o-Xylene	940	4100		120	36	596.6	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	3200	3200		380	110	596.6	TO-15	Total
Ethylbenzene	5300	5300		520	180	596.6	TO-15	Total
Methylcyclohexane	51000	51000		480	480	596.6	TO-15	Total
Methylene chloride	120	120	J	1000	93	596.6	TO-15	Total
Toluene	9100	9100		450	120	596.6	TO-15	Total
1,2,4-Trimethylbenzene	4200	4200		590	180	596.6	TO-15	Total
1,3,5-Trimethylbenzene	1300	1300		590	190	596.6	TO-15	Total
m-Xylene & p-Xylene	13000	13000		520	310	596.6	TO-15	Total
o-Xylene	4100	4100		520	160	596.6	TO-15	Total

Client Sample ID: AOI-09B-AS-OWS-INF(051713) — Lab Sample ID: H3E180408002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	160	500		8.5	2.4	42.74	TO-15	Total
Ethylbenzene	280	1200		8.5	2.9	42.74	TO-15	Total
Methylcyclohexane	1400	5700		8.5	8.5	42.74	TO-15	Total
Methylene chloride	4.1	14	J	21	1.9	42.74	TO-15	Total
Toluene	400	1500		8.5	2.3	42.74	TO-15	Total
1,2,4-Trimethylbenzene	380	1900		8.5	2.7	42.74	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Client Sample ID: AOI-09B-AS-OWS-INF(051713) (Continued)

Lab Sample ID: H3E180408002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
1,3,5-Trimethylbenzene	110	540		8.5	2.8	42.74	TO-15	Total
m-Xylene & p-Xylene	890	3900		8.5	5.1	42.74	TO-15	Total
o-Xylene	300	1300		8.5	2.6	42.74	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	500	500		27	7.6	42.74	TO-15	Total
Ethylbenzene	1200	1200		37	13	42.74	TO-15	Total
Methylcyclohexane	5700	5700		34	34	42.74	TO-15	Total
Methylene chloride	14	14	J	74	6.7	42.74	TO-15	Total
Toluene	1500	1500		32	8.7	42.74	TO-15	Total
1,2,4-Trimethylbenzene	1900	1900		42	13	42.74	TO-15	Total
1,3,5-Trimethylbenzene	540	540		42	14	42.74	TO-15	Total
m-Xylene & p-Xylene	3900	3900		37	22	42.74	TO-15	Total
o-Xylene	1300	1300		37	11	42.74	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Client Sample ID: AOI-09B-SVE-INF (051713)

Lab Sample ID: 200-16759-1

Date Collected: 05/17/13 10:20
Matrix: Air
Date Received: 05/31/13 10:25
Sample Container: Summa Canister 6L

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**110000**	**450000**		2100	2100		06/04/13 02:20	149

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**450000**	**450000**		8500	8500		06/04/13 02:20	149

Client Sample ID: AOI-09B-AS-OWS-INF (051713)

Lab Sample ID: 200-16759-2

Date Collected: 05/17/13 10:35
Matrix: Air
Date Received: 05/31/13 10:25
Sample Container: Summa Canister 6L

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**11000**	**47000**		300	300		06/04/13 03:12	21.4

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**47000**	**47000**		1200	1200		06/04/13 03:12	21.4

Client Sample ID: AOI-09B-SVE-INF(051713)

Lab Sample ID: H3E180408001

Date Collected: 05/17/13 10:20
Matrix: Air
Date Received: 05/18/13 09:15

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**990**	**3200**		120	33		05/21/13 08:06	596.6
Benzyl chloride	ND	ND		240	47		05/21/13 08:06	596.6
Bromomethane	ND	ND		120	19		05/21/13 08:06	596.6
Carbon tetrachloride	ND	ND		120	23		05/21/13 08:06	596.6
Chlorobenzene	ND	ND		120	29		05/21/13 08:06	596.6
Chloroethane	ND	ND		120	21		05/21/13 08:06	596.6
Chloroform	ND	ND		120	23		05/21/13 08:06	596.6
Chloromethane	ND	ND		300	95		05/21/13 08:06	596.6
1,2-Dibromoethane (EDB)	ND	ND		120	26		05/21/13 08:06	596.6
1,2-Dichlorobenzene	ND	ND		120	42		05/21/13 08:06	596.6
1,3-Dichlorobenzene	ND	ND		120	39		05/21/13 08:06	596.6
1,4-Dichlorobenzene	ND	ND		120	38		05/21/13 08:06	596.6
Dichlorodifluoromethane	ND	ND		120	41		05/21/13 08:06	596.6
1,1-Dichloroethane	ND	ND		120	16		05/21/13 08:06	596.6
1,2-Dichloroethane	ND	ND		120	28		05/21/13 08:06	596.6
cis-1,2-Dichloroethene	ND	ND		120	36		05/21/13 08:06	596.6
1,1-Dichloroethene	ND	ND		120	20		05/21/13 08:06	596.6
1,2-Dichloropropane	ND	ND		120	31		05/21/13 08:06	596.6
cis-1,3-Dichloropropene	ND	ND		120	44		05/21/13 08:06	596.6
trans-1,3-Dichloropropene	ND	ND		120	29		05/21/13 08:06	596.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		120	19		05/21/13 08:06	596.6
Ethylbenzene	**1200**	**5300**		120	41		05/21/13 08:06	596.6

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Client Sample ID: AOI-09B-SVE-INF(051713)
Date Collected: 05/17/13 10:20
Date Received: 05/18/13 09:15

Lab Sample ID: H3E180408001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND	ND		600	47		05/21/13 08:06	596.6
Methylcyclohexane	**13000**	**51000**		120	120		05/21/13 08:06	596.6
Methylene chloride	**36**	**120**	**J**	300	27		05/21/13 08:06	596.6
Styrene	ND	ND		120	35		05/21/13 08:06	596.6
1,1,2,2-Tetrachloroethane	ND	ND		120	36		05/21/13 08:06	596.6
Tetrachloroethene	ND	ND		120	24		05/21/13 08:06	596.6
Toluene	**2400**	**9100**		120	32		05/21/13 08:06	596.6
1,2,4-Trichlorobenzene	ND	ND		600	58		05/21/13 08:06	596.6
1,1,1-Trichloroethane	ND	ND		120	18		05/21/13 08:06	596.6
1,1,2-Trichloroethane	ND	ND		120	32		05/21/13 08:06	596.6
Trichloroethene	ND	ND		120	21		05/21/13 08:06	596.6
Trichlorofluoromethane	ND	ND		120	14		05/21/13 08:06	596.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		120	18		05/21/13 08:06	596.6
1,2,4-Trimethylbenzene	**850**	**4200**		120	38		05/21/13 08:06	596.6
1,3,5-Trimethylbenzene	**270**	**1300**		120	39		05/21/13 08:06	596.6
Vinyl chloride	ND	ND		120	42		05/21/13 08:06	596.6
m-Xylene & p-Xylene	**2900**	**13000**		120	72		05/21/13 08:06	596.6
o-Xylene	**940**	**4100**		120	36		05/21/13 08:06	596.6

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**3200**	**3200**		380	110		05/21/13 08:06	596.6
Benzyl chloride	ND	ND		1200	240		05/21/13 08:06	596.6
Bromomethane	ND	ND		460	74		05/21/13 08:06	596.6
Carbon tetrachloride	ND	ND		750	140		05/21/13 08:06	596.6
Chlorobenzene	ND	ND		550	130		05/21/13 08:06	596.6
Chloroethane	ND	ND		310	55		05/21/13 08:06	596.6
Chloroform	ND	ND		580	110		05/21/13 08:06	596.6
Chloromethane	ND	ND		620	200		05/21/13 08:06	596.6
1,2-Dibromoethane (EDB)	ND	ND		920	200		05/21/13 08:06	596.6
1,2-Dichlorobenzene	ND	ND		720	250		05/21/13 08:06	596.6
1,3-Dichlorobenzene	ND	ND		720	230		05/21/13 08:06	596.6
1,4-Dichlorobenzene	ND	ND		720	230		05/21/13 08:06	596.6
Dichlorodifluoromethane	ND	ND		590	200		05/21/13 08:06	596.6
1,1-Dichloroethane	ND	ND		480	63		05/21/13 08:06	596.6
1,2-Dichloroethane	ND	ND		480	110		05/21/13 08:06	596.6
cis-1,2-Dichloroethene	ND	ND		470	140		05/21/13 08:06	596.6
1,1-Dichloroethene	ND	ND		470	80		05/21/13 08:06	596.6
1,2-Dichloropropane	ND	ND		550	140		05/21/13 08:06	596.6
cis-1,3-Dichloropropene	ND	ND		540	200		05/21/13 08:06	596.6
trans-1,3-Dichloropropene	ND	ND		540	130		05/21/13 08:06	596.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		830	130		05/21/13 08:06	596.6
Ethylbenzene	**5300**	**5300**		520	180		05/21/13 08:06	596.6
Hexachlorobutadiene	ND	ND		6400	500		05/21/13 08:06	596.6
Methylcyclohexane	**51000**	**51000**		480	480		05/21/13 08:06	596.6
Methylene chloride	**120**	**120**	**J**	1000	93		05/21/13 08:06	596.6
Styrene	ND	ND		510	150		05/21/13 08:06	596.6
1,1,2,2-Tetrachloroethane	ND	ND		820	250		05/21/13 08:06	596.6
Tetrachloroethene	ND	ND		810	160		05/21/13 08:06	596.6

Client Sample ID: AOI-09B-SVE-INF(051713)

Lab Sample ID: H3E180408001

Date Collected: 05/17/13 10:20

Matrix: Air

Date Received: 05/18/13 09:15

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Toluene	**9100**	**9100**		450	120		05/21/13 08:06	596.6
1,2,4-Trichlorobenzene	ND	ND		4400	430		05/21/13 08:06	596.6
1,1,1-Trichloroethane	ND	ND		650	98		05/21/13 08:06	596.6
1,1,2-Trichloroethane	ND	ND		650	180		05/21/13 08:06	596.6
Trichloroethene	ND	ND		640	120		05/21/13 08:06	596.6
Trichlorofluoromethane	ND	ND		670	80		05/21/13 08:06	596.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		910	140		05/21/13 08:06	596.6
1,2,4-Trimethylbenzene	**4200**	**4200**		590	180		05/21/13 08:06	596.6
1,3,5-Trimethylbenzene	**1300**	**1300**		590	190		05/21/13 08:06	596.6
Vinyl chloride	ND	ND		310	110		05/21/13 08:06	596.6
m-Xylene & p-Xylene	**13000**	**13000**		520	310		05/21/13 08:06	596.6
o-Xylene	**4100**	**4100**		520	160		05/21/13 08:06	596.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*60 - 140*		*05/21/13 08:06*	*596.6*

Client Sample ID: AOI-09B-AS-OWS-INF(051713)

Lab Sample ID: H3E180408002

Date Collected: 05/17/13 10:35

Matrix: Air

Date Received: 05/18/13 09:15

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**160**	**500**		8.5	2.4		05/22/13 07:42	42.74
Benzyl chloride	ND	ND		17	3.3		05/22/13 07:42	42.74
Bromomethane	ND	ND		8.5	1.4		05/22/13 07:42	42.74
Carbon tetrachloride	ND	ND		8.5	1.6		05/22/13 07:42	42.74
Chlorobenzene	ND	ND		8.5	2.1		05/22/13 07:42	42.74
Chloroethane	ND	ND		8.5	1.5		05/22/13 07:42	42.74
Chloroform	ND	ND		8.5	1.6		05/22/13 07:42	42.74
Chloromethane	ND	ND		21	6.8		05/22/13 07:42	42.74
1,2-Dibromoethane (EDB)	ND	ND		8.5	1.9		05/22/13 07:42	42.74
1,2-Dichlorobenzene	ND	ND		8.5	3.0		05/22/13 07:42	42.74
1,3-Dichlorobenzene	ND	ND		8.5	2.8		05/22/13 07:42	42.74
1,4-Dichlorobenzene	ND	ND		8.5	2.7		05/22/13 07:42	42.74
Dichlorodifluoromethane	ND	ND		8.5	2.9		05/22/13 07:42	42.74
1,1-Dichloroethane	ND	ND		8.5	1.1		05/22/13 07:42	42.74
1,2-Dichloroethane	ND	ND		8.5	2.0		05/22/13 07:42	42.74
cis-1,2-Dichloroethene	ND	ND		8.5	2.6		05/22/13 07:42	42.74
1,1-Dichloroethene	ND	ND		8.5	1.5		05/22/13 07:42	42.74
1,2-Dichloropropane	ND	ND		8.5	2.2		05/22/13 07:42	42.74
cis-1,3-Dichloropropene	ND	ND		8.5	3.2		05/22/13 07:42	42.74
trans-1,3-Dichloropropene	ND	ND		8.5	2.1		05/22/13 07:42	42.74
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		8.5	1.4		05/22/13 07:42	42.74
Ethylbenzene	**280**	**1200**		8.5	2.9		05/22/13 07:42	42.74
Hexachlorobutadiene	ND	ND		43	3.3		05/22/13 07:42	42.74
Methylcyclohexane	**1400**	**5700**		8.5	8.5		05/22/13 07:42	42.74
Methylene chloride	**4.1**	**14**	**J**	21	1.9		05/22/13 07:42	42.74
Styrene	ND	ND		8.5	2.5		05/22/13 07:42	42.74

Client Sample ID: AOI-09B-AS-OWS-INF(051713)
Date Collected: 05/17/13 10:35
Date Received: 05/18/13 09:15

Lab Sample ID: H3E180408002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND	ND		8.5	2.6		05/22/13 07:42	42.74
Tetrachloroethene	ND	ND		8.5	1.7		05/22/13 07:42	42.74
Toluene	**400**	**1500**		8.5	2.3		05/22/13 07:42	42.74
1,2,4-Trichlorobenzene	ND	ND		43	4.2		05/22/13 07:42	42.74
1,1,1-Trichloroethane	ND	ND		8.5	1.3		05/22/13 07:42	42.74
1,1,2-Trichloroethane	ND	ND		8.5	2.3		05/22/13 07:42	42.74
Trichloroethene	ND	ND		8.5	1.5		05/22/13 07:42	42.74
Trichlorofluoromethane	ND	ND		8.5	1.0		05/22/13 07:42	42.74
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		8.5	1.3		05/22/13 07:42	42.74
1,2,4-Trimethylbenzene	**380**	**1900**		8.5	2.7		05/22/13 07:42	42.74
1,3,5-Trimethylbenzene	**110**	**540**		8.5	2.8		05/22/13 07:42	42.74
Vinyl chloride	ND	ND		8.5	3.0		05/22/13 07:42	42.74
m-Xylene & p-Xylene	**890**	**3900**		8.5	5.1		05/22/13 07:42	42.74
o-Xylene	**300**	**1300**		8.5	2.6		05/22/13 07:42	42.74

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**500**	**500**		27	7.6		05/22/13 07:42	42.74
Benzyl chloride	ND	ND		89	17		05/22/13 07:42	42.74
Bromomethane	ND	ND		33	5.3		05/22/13 07:42	42.74
Carbon tetrachloride	ND	ND		54	10		05/22/13 07:42	42.74
Chlorobenzene	ND	ND		39	9.6		05/22/13 07:42	42.74
Chloroethane	ND	ND		23	3.9		05/22/13 07:42	42.74
Chloroform	ND	ND		42	7.9		05/22/13 07:42	42.74
Chloromethane	ND	ND		44	14		05/22/13 07:42	42.74
1,2-Dibromoethane (EDB)	ND	ND		66	14		05/22/13 07:42	42.74
1,2-Dichlorobenzene	ND	ND		51	18		05/22/13 07:42	42.74
1,3-Dichlorobenzene	ND	ND		51	17		05/22/13 07:42	42.74
1,4-Dichlorobenzene	ND	ND		51	16		05/22/13 07:42	42.74
Dichlorodifluoromethane	ND	ND		42	14		05/22/13 07:42	42.74
1,1-Dichloroethane	ND	ND		35	4.5		05/22/13 07:42	42.74
1,2-Dichloroethane	ND	ND		35	8.1		05/22/13 07:42	42.74
cis-1,2-Dichloroethene	ND	ND		34	10		05/22/13 07:42	42.74
1,1-Dichloroethene	ND	ND		34	5.8		05/22/13 07:42	42.74
1,2-Dichloropropane	ND	ND		40	10		05/22/13 07:42	42.74
cis-1,3-Dichloropropene	ND	ND		39	14		05/22/13 07:42	42.74
trans-1,3-Dichloropropene	ND	ND		39	9.3		05/22/13 07:42	42.74
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		60	9.6		05/22/13 07:42	42.74
Ethylbenzene	**1200**	**1200**		37	13		05/22/13 07:42	42.74
Hexachlorobutadiene	ND	ND		460	36		05/22/13 07:42	42.74
Methylcyclohexane	**5700**	**5700**		34	34		05/22/13 07:42	42.74
Methylene chloride	**14**	**14**	**J**	74	6.7		05/22/13 07:42	42.74
Styrene	ND	ND		36	11		05/22/13 07:42	42.74
1,1,2,2-Tetrachloroethane	ND	ND		59	18		05/22/13 07:42	42.74
Tetrachloroethene	ND	ND		58	12		05/22/13 07:42	42.74
Toluene	**1500**	**1500**		32	8.7		05/22/13 07:42	42.74
1,2,4-Trichlorobenzene	ND	ND		320	31		05/22/13 07:42	42.74
1,1,1-Trichloroethane	ND	ND		47	7.0		05/22/13 07:42	42.74
1,1,2-Trichloroethane	ND	ND		47	13		05/22/13 07:42	42.74

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Client Sample ID: AOI-09B-AS-OWS-INF(051713)
Date Collected: 05/17/13 10:35
Date Received: 05/18/13 09:15

Lab Sample ID: H3E180408002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Trichloroethene	ND	ND		46	8.3		05/22/13 07:42	42.74
Trichlorofluoromethane	ND	ND		48	5.8		05/22/13 07:42	42.74
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		66	10		05/22/13 07:42	42.74
1,2,4-Trimethylbenzene	**1900**	**1900**		42	13		05/22/13 07:42	42.74
1,3,5-Trimethylbenzene	**540**	**540**		42	14		05/22/13 07:42	42.74
Vinyl chloride	ND	ND		22	7.8		05/22/13 07:42	42.74
m-Xylene & p-Xylene	**3900**	**3900**		37	22		05/22/13 07:42	42.74
o-Xylene	**1300**	**1300**		37	11		05/22/13 07:42	42.74

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*60 - 140*		*05/22/13 07:42*	*42.74*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
H3E180408001	AOI-09B-SVE-INF(051713)	101							
H3E180408002	AOI-09B-AS-OWS-INF(051713)	109							
H3E210000041B	Method Blank	100							
H3E210000041C	Lab Control Sample	100							
H3E210000049B	Method Blank	100							
H3E210000049C	Lab Control Sample	102							

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3E210000041B
Matrix: Air
Analysis Batch: 3141041

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		05/20/13 13:03	1
Benzyl chloride	ND	ND		0.40	0.078		05/20/13 13:03	1
Bromomethane	ND	ND		0.20	0.032		05/20/13 13:03	1
Carbon tetrachloride	ND	ND		0.20	0.038		05/20/13 13:03	1
Chlorobenzene	ND	ND		0.20	0.049		05/20/13 13:03	1
Chloroethane	ND	ND		0.20	0.035		05/20/13 13:03	1
Chloroform	ND	ND		0.20	0.038		05/20/13 13:03	1
Chloromethane	ND	ND		0.50	0.16		05/20/13 13:03	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		05/20/13 13:03	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		05/20/13 13:03	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		05/20/13 13:03	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		05/20/13 13:03	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		05/20/13 13:03	1
1,1-Dichloroethane	ND	ND		0.20	0.026		05/20/13 13:03	1
1,2-Dichloroethane	ND	ND		0.20	0.047		05/20/13 13:03	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		05/20/13 13:03	1
1,1-Dichloroethene	ND	ND		0.20	0.034		05/20/13 13:03	1
1,2-Dichloropropane	ND	ND		0.20	0.052		05/20/13 13:03	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		05/20/13 13:03	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		05/20/13 13:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		05/20/13 13:03	1
Ethylbenzene	ND	ND		0.20	0.068		05/20/13 13:03	1
Hexachlorobutadiene	ND	ND		1.0	0.078		05/20/13 13:03	1
Methylcyclohexane	ND	ND		0.20	0.20		05/20/13 13:03	1
Methylene chloride	ND	0.089		0.50	0.045		05/20/13 13:03	1
Styrene	ND	ND		0.20	0.058		05/20/13 13:03	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		05/20/13 13:03	1
Tetrachloroethene	ND	ND		0.20	0.040		05/20/13 13:03	1
Toluene	ND	ND		0.20	0.054		05/20/13 13:03	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		05/20/13 13:03	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		05/20/13 13:03	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		05/20/13 13:03	1
Trichloroethene	ND	ND		0.20	0.036		05/20/13 13:03	1
Trichlorofluoromethane	ND	ND		0.20	0.024		05/20/13 13:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		05/20/13 13:03	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		05/20/13 13:03	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		05/20/13 13:03	1
Vinyl chloride	ND	ND		0.20	0.071		05/20/13 13:03	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		05/20/13 13:03	1
o-Xylene	ND	ND		0.20	0.061		05/20/13 13:03	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		05/20/13 13:03	1
Benzyl chloride	ND	ND		2.1	0.40		05/20/13 13:03	1
Bromomethane	ND	ND		0.78	0.12		05/20/13 13:03	1
Carbon tetrachloride	ND	ND		1.3	0.24		05/20/13 13:03	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000041B
Matrix: Air
Analysis Batch: 3141041

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	ND		0.92	0.23		05/20/13 13:03	1
Chloroethane	ND	ND		0.53	0.092		05/20/13 13:03	1
Chloroform	ND	ND		0.98	0.19		05/20/13 13:03	1
Chloromethane	ND	ND		1.0	0.33		05/20/13 13:03	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		05/20/13 13:03	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		05/20/13 13:03	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		05/20/13 13:03	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		05/20/13 13:03	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		05/20/13 13:03	1
1,1-Dichloroethane	ND	ND		0.81	0.11		05/20/13 13:03	1
1,2-Dichloroethane	ND	ND		0.81	0.19		05/20/13 13:03	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		05/20/13 13:03	1
1,1-Dichloroethene	ND	ND		0.79	0.13		05/20/13 13:03	1
1,2-Dichloropropane	ND	ND		0.92	0.24		05/20/13 13:03	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		05/20/13 13:03	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		05/20/13 13:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		05/20/13 13:03	1
Ethylbenzene	ND	ND		0.87	0.30		05/20/13 13:03	1
Hexachlorobutadiene	ND	ND		11	0.83		05/20/13 13:03	1
Methylcyclohexane	ND	ND		0.80	0.80		05/20/13 13:03	1
Methylene chloride	0.089	0.089		1.7	0.16		05/20/13 13:03	1
Styrene	ND	ND		0.85	0.25		05/20/13 13:03	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		05/20/13 13:03	1
Tetrachloroethene	ND	ND		1.4	0.27		05/20/13 13:03	1
Toluene	ND	ND		0.75	0.20		05/20/13 13:03	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		05/20/13 13:03	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		05/20/13 13:03	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		05/20/13 13:03	1
Trichloroethene	ND	ND		1.1	0.19		05/20/13 13:03	1
Trichlorofluoromethane	ND	ND		1.1	0.13		05/20/13 13:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		05/20/13 13:03	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		05/20/13 13:03	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		05/20/13 13:03	1
Vinyl chloride	ND	ND		0.51	0.18		05/20/13 13:03	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		05/20/13 13:03	1
o-Xylene	ND	ND		0.87	0.26		05/20/13 13:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*60 - 140*		*05/20/13 13:03*	*1*

Lab Sample ID: H3E210000041C
Matrix: Air
Analysis Batch: 3141041

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.10		ppb(v/v)		82	70 - 130
Benzyl chloride	5.00	6.06		ppb(v/v)		121	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000041C
Matrix: Air
Analysis Batch: 3141041

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	5.00	4.88		ppb(v/v)		98	70 - 130
Carbon tetrachloride	5.00	5.73		ppb(v/v)		115	70 - 130
Chlorobenzene	5.00	4.90		ppb(v/v)		98	70 - 130
Chloroethane	5.00	4.42		ppb(v/v)		88	70 - 130
Chloroform	5.00	4.49		ppb(v/v)		90	70 - 130
Chloromethane	5.00	4.51		ppb(v/v)		90	60 - 140
1,2-Dibromoethane (EDB)	5.00	5.23		ppb(v/v)		105	70 - 130
1,2-Dichlorobenzene	5.00	5.36		ppb(v/v)		107	70 - 130
1,3-Dichlorobenzene	5.00	5.35		ppb(v/v)		107	70 - 130
1,4-Dichlorobenzene	5.00	5.38		ppb(v/v)		108	70 - 130
Dichlorodifluoromethane	5.00	5.26		ppb(v/v)		105	60 - 140
1,1-Dichloroethane	5.00	4.40		ppb(v/v)		88	70 - 130
1,2-Dichloroethane	5.00	4.69		ppb(v/v)		94	70 - 130
cis-1,2-Dichloroethene	5.00	4.16		ppb(v/v)		83	70 - 130
1,1-Dichloroethene	5.00	3.88		ppb(v/v)		78	70 - 130
1,2-Dichloropropane	5.00	4.36		ppb(v/v)		87	70 - 130
cis-1,3-Dichloropropene	5.00	5.08		ppb(v/v)		102	70 - 130
trans-1,3-Dichloropropene	5.00	5.80		ppb(v/v)		116	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.40		ppb(v/v)		108	60 - 140
Ethylbenzene	5.00	4.70		ppb(v/v)		94	70 - 130
Hexachlorobutadiene	5.00	5.15		ppb(v/v)		103	60 - 140
Methylcyclohexane	5.00	4.25		ppb(v/v)		85	20 - 180
Methylene chloride	5.00	3.84		ppb(v/v)		77	70 - 130
Styrene	5.00	5.25		ppb(v/v)		105	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.87		ppb(v/v)		97	70 - 130
Tetrachloroethene	5.00	4.99		ppb(v/v)		100	70 - 130
Toluene	5.00	4.46		ppb(v/v)		89	70 - 130
1,2,4-Trichlorobenzene	5.00	6.39		ppb(v/v)		128	60 - 140
1,1,1-Trichloroethane	5.00	4.73		ppb(v/v)		95	70 - 130
1,1,2-Trichloroethane	5.00	4.83		ppb(v/v)		97	70 - 130
Trichloroethene	5.00	4.72		ppb(v/v)		94	70 - 130
Trichlorofluoromethane	5.00	5.22		ppb(v/v)		104	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.11		ppb(v/v)		82	70 - 130
1,2,4-Trimethylbenzene	5.00	5.37		ppb(v/v)		107	70 - 130
1,3,5-Trimethylbenzene	5.00	5.22		ppb(v/v)		104	70 - 130
Vinyl chloride	5.00	4.44		ppb(v/v)		89	70 - 130
m-Xylene & p-Xylene	10.0	9.50		ppb(v/v)		95	70 - 130
o-Xylene	5.00	4.86		ppb(v/v)		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	13.1		ug/m3		82	70 - 130
Benzyl chloride	25.9	31.4		ug/m3		121	70 - 130
Bromomethane	19.4	18.9		ug/m3		98	70 - 130
Carbon tetrachloride	31.5	36.1		ug/m3		115	70 - 130
Chlorobenzene	23.0	22.5		ug/m3		98	70 - 130
Chloroethane	13.2	11.7		ug/m3		88	70 - 130
Chloroform	24.4	21.9		ug/m3		90	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000041C
Matrix: Air
Analysis Batch: 3141041

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.3	9.32		ug/m3		90	60 - 140
1,2-Dibromoethane (EDB)	38.4	40.2		ug/m3		105	70 - 130
1,2-Dichlorobenzene	30.1	32.2		ug/m3		107	70 - 130
1,3-Dichlorobenzene	30.1	32.2		ug/m3		107	70 - 130
1,4-Dichlorobenzene	30.1	32.4		ug/m3		108	70 - 130
Dichlorodifluoromethane	24.7	26.0		ug/m3		105	60 - 140
1,1-Dichloroethane	20.2	17.8		ug/m3		88	70 - 130
1,2-Dichloroethane	20.2	19.0		ug/m3		94	70 - 130
cis-1,2-Dichloroethene	19.8	16.5		ug/m3		83	70 - 130
1,1-Dichloroethene	19.8	15.4		ug/m3		78	70 - 130
1,2-Dichloropropane	23.1	20.2		ug/m3		87	70 - 130
cis-1,3-Dichloropropene	22.7	23.1		ug/m3		102	70 - 130
trans-1,3-Dichloropropene	22.7	26.3		ug/m3		116	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	37.7		ug/m3		108	60 - 140
Ethylbenzene	21.7	20.4		ug/m3		94	70 - 130
Hexachlorobutadiene	53.3	55.0		ug/m3		103	60 - 140
Methylcyclohexane	20.1	17.1		ug/m3		85	20 - 180
Methylene chloride	17.4	13.3		ug/m3		77	70 - 130
Styrene	21.3	22.3		ug/m3		105	70 - 130
1,1,2,2-Tetrachloroethane	34.3	33.5		ug/m3		97	70 - 130
Tetrachloroethene	33.9	33.9		ug/m3		100	70 - 130
Toluene	18.8	16.8		ug/m3		89	70 - 130
1,2,4-Trichlorobenzene	37.1	47.5		ug/m3		128	60 - 140
1,1,1-Trichloroethane	27.3	25.8		ug/m3		95	70 - 130
1,1,2-Trichloroethane	27.3	26.4		ug/m3		97	70 - 130
Trichloroethene	26.9	25.4		ug/m3		94	70 - 130
Trichlorofluoromethane	28.1	29.3		ug/m3		104	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	31.5		ug/m3		82	70 - 130
1,2,4-Trimethylbenzene	24.6	26.4		ug/m3		107	70 - 130
1,3,5-Trimethylbenzene	24.6	25.7		ug/m3		104	70 - 130
Vinyl chloride	12.8	11.3		ug/m3		89	70 - 130
m-Xylene & p-Xylene	43.4	41.3		ug/m3		95	70 - 130
o-Xylene	21.7	21.1		ug/m3		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*60 - 140*

Lab Sample ID: H3E210000049B
Matrix: Air
Analysis Batch: 3141049

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		05/21/13 15:53	1
Benzyl chloride	ND	ND		0.40	0.078		05/21/13 15:53	1
Bromomethane	ND	ND		0.20	0.032		05/21/13 15:53	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000049B
Matrix: Air
Analysis Batch: 3141049

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND	ND		0.20	0.038		05/21/13 15:53	1
Chlorobenzene	ND	ND		0.20	0.049		05/21/13 15:53	1
Chloroethane	ND	ND		0.20	0.035		05/21/13 15:53	1
Chloroform	ND	ND		0.20	0.038		05/21/13 15:53	1
Chloromethane	ND	ND		0.50	0.16		05/21/13 15:53	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		05/21/13 15:53	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		05/21/13 15:53	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		05/21/13 15:53	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		05/21/13 15:53	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		05/21/13 15:53	1
1,1-Dichloroethane	ND	ND		0.20	0.026		05/21/13 15:53	1
1,2-Dichloroethane	ND	ND		0.20	0.047		05/21/13 15:53	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		05/21/13 15:53	1
1,1-Dichloroethene	ND	ND		0.20	0.034		05/21/13 15:53	1
1,2-Dichloropropane	ND	ND		0.20	0.052		05/21/13 15:53	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		05/21/13 15:53	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		05/21/13 15:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		05/21/13 15:53	1
Ethylbenzene	ND	ND		0.20	0.068		05/21/13 15:53	1
Hexachlorobutadiene	ND	ND		1.0	0.078		05/21/13 15:53	1
Methylcyclohexane	ND	ND		0.20	0.20		05/21/13 15:53	1
Methylene chloride	ND	0.070		0.50	0.045		05/21/13 15:53	1
Styrene	ND	ND		0.20	0.058		05/21/13 15:53	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		05/21/13 15:53	1
Tetrachloroethene	ND	ND		0.20	0.040		05/21/13 15:53	1
Toluene	ND	ND		0.20	0.054		05/21/13 15:53	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		05/21/13 15:53	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		05/21/13 15:53	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		05/21/13 15:53	1
Trichloroethene	ND	ND		0.20	0.036		05/21/13 15:53	1
Trichlorofluoromethane	ND	ND		0.20	0.024		05/21/13 15:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		05/21/13 15:53	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		05/21/13 15:53	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		05/21/13 15:53	1
Vinyl chloride	ND	ND		0.20	0.071		05/21/13 15:53	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		05/21/13 15:53	1
o-Xylene	ND	ND		0.20	0.061		05/21/13 15:53	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		05/21/13 15:53	1
Benzyl chloride	ND	ND		2.1	0.40		05/21/13 15:53	1
Bromomethane	ND	ND		0.78	0.12		05/21/13 15:53	1
Carbon tetrachloride	ND	ND		1.3	0.24		05/21/13 15:53	1
Chlorobenzene	ND	ND		0.92	0.23		05/21/13 15:53	1
Chloroethane	ND	ND		0.53	0.092		05/21/13 15:53	1
Chloroform	ND	ND		0.98	0.19		05/21/13 15:53	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000049B
Matrix: Air
Analysis Batch: 3141049

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Chloromethane	ND	ND		1.0	0.33		05/21/13 15:53	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		05/21/13 15:53	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		05/21/13 15:53	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		05/21/13 15:53	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		05/21/13 15:53	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		05/21/13 15:53	1
1,1-Dichloroethane	ND	ND		0.81	0.11		05/21/13 15:53	1
1,2-Dichloroethane	ND	ND		0.81	0.19		05/21/13 15:53	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		05/21/13 15:53	1
1,1-Dichloroethene	ND	ND		0.79	0.13		05/21/13 15:53	1
1,2-Dichloropropane	ND	ND		0.92	0.24		05/21/13 15:53	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		05/21/13 15:53	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		05/21/13 15:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		05/21/13 15:53	1
Ethylbenzene	ND	ND		0.87	0.30		05/21/13 15:53	1
Hexachlorobutadiene	ND	ND		11	0.83		05/21/13 15:53	1
Methylcyclohexane	ND	ND		0.80	0.80		05/21/13 15:53	1
Methylene chloride	0.070	0.070		1.7	0.16		05/21/13 15:53	1
Styrene	ND	ND		0.85	0.25		05/21/13 15:53	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		05/21/13 15:53	1
Tetrachloroethene	ND	ND		1.4	0.27		05/21/13 15:53	1
Toluene	ND	ND		0.75	0.20		05/21/13 15:53	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		05/21/13 15:53	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		05/21/13 15:53	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		05/21/13 15:53	1
Trichloroethene	ND	ND		1.1	0.19		05/21/13 15:53	1
Trichlorofluoromethane	ND	ND		1.1	0.13		05/21/13 15:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		05/21/13 15:53	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		05/21/13 15:53	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		05/21/13 15:53	1
Vinyl chloride	ND	ND		0.51	0.18		05/21/13 15:53	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		05/21/13 15:53	1
o-Xylene	ND	ND		0.87	0.26		05/21/13 15:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*60 - 140*		*05/21/13 15:53*	*1*

Lab Sample ID: H3E210000049C
Matrix: Air
Analysis Batch: 3141049

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.19		ppb(v/v)		84	70 - 130
Benzyl chloride	5.00	4.32		ppb(v/v)		86	70 - 130
Bromomethane	5.00	4.53		ppb(v/v)		91	70 - 130
Carbon tetrachloride	5.00	4.96		ppb(v/v)		99	70 - 130
Chlorobenzene	5.00	4.16		ppb(v/v)		83	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000049C
Matrix: Air
Analysis Batch: 3141049

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	5.00	4.86		ppb(v/v)		97	70 - 130
Chloroform	5.00	4.54		ppb(v/v)		91	70 - 130
Chloromethane	5.00	4.87		ppb(v/v)		97	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.02		ppb(v/v)		80	70 - 130
1,2-Dichlorobenzene	5.00	3.94		ppb(v/v)		79	70 - 130
1,3-Dichlorobenzene	5.00	3.87		ppb(v/v)		77	70 - 130
1,4-Dichlorobenzene	5.00	3.75		ppb(v/v)		75	70 - 130
Dichlorodifluoromethane	5.00	4.83		ppb(v/v)		97	60 - 140
1,1-Dichloroethane	5.00	4.67		ppb(v/v)		93	70 - 130
1,2-Dichloroethane	5.00	4.66		ppb(v/v)		93	70 - 130
cis-1,2-Dichloroethene	5.00	4.36		ppb(v/v)		87	70 - 130
1,1-Dichloroethene	5.00	4.58		ppb(v/v)		92	70 - 130
1,2-Dichloropropane	5.00	4.45		ppb(v/v)		89	70 - 130
cis-1,3-Dichloropropene	5.00	4.33		ppb(v/v)		87	70 - 130
trans-1,3-Dichloropropene	5.00	4.46		ppb(v/v)		89	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	4.90		ppb(v/v)		98	60 - 140
Ethylbenzene	5.00	4.07		ppb(v/v)		81	70 - 130
Hexachlorobutadiene	5.00	3.99		ppb(v/v)		80	60 - 140
Methylcyclohexane	5.00	4.12		ppb(v/v)		82	20 - 180
Methylene chloride	5.00	4.50		ppb(v/v)		90	70 - 130
Styrene	5.00	3.96		ppb(v/v)		79	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.21		ppb(v/v)		84	70 - 130
Tetrachloroethene	5.00	4.36		ppb(v/v)		87	70 - 130
Toluene	5.00	4.18		ppb(v/v)		84	70 - 130
1,2,4-Trichlorobenzene	5.00	3.81		ppb(v/v)		76	60 - 140
1,1,1-Trichloroethane	5.00	4.74		ppb(v/v)		95	70 - 130
1,1,2-Trichloroethane	5.00	4.28		ppb(v/v)		86	70 - 130
Trichloroethene	5.00	4.32		ppb(v/v)		86	70 - 130
Trichlorofluoromethane	5.00	5.04		ppb(v/v)		101	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.76		ppb(v/v)		95	70 - 130
1,2,4-Trimethylbenzene	5.00	4.20		ppb(v/v)		84	70 - 130
1,3,5-Trimethylbenzene	5.00	4.07		ppb(v/v)		81	70 - 130
Vinyl chloride	5.00	4.73		ppb(v/v)		95	70 - 130
m-Xylene & p-Xylene	10.0	8.09		ppb(v/v)		81	70 - 130
o-Xylene	5.00	4.04		ppb(v/v)		81	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	13.4		ug/m3		84	70 - 130
Benzyl chloride	25.9	22.4		ug/m3		86	70 - 130
Bromomethane	19.4	17.6		ug/m3		91	70 - 130
Carbon tetrachloride	31.5	31.2		ug/m3		99	70 - 130
Chlorobenzene	23.0	19.1		ug/m3		83	70 - 130
Chloroethane	13.2	12.8		ug/m3		97	70 - 130
Chloroform	24.4	22.2		ug/m3		91	70 - 130
Chloromethane	10.3	10.1		ug/m3		97	60 - 140
1,2-Dibromoethane (EDB)	38.4	30.9		ug/m3		80	70 - 130
1,2-Dichlorobenzene	30.1	23.7		ug/m3		79	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3E210000049C
Matrix: Air
Analysis Batch: 3141049

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	30.1	23.3		ug/m3		77	70 - 130
1,4-Dichlorobenzene	30.1	22.5		ug/m3		75	70 - 130
Dichlorodifluoromethane	24.7	23.9		ug/m3		97	60 - 140
1,1-Dichloroethane	20.2	18.9		ug/m3		93	70 - 130
1,2-Dichloroethane	20.2	18.9		ug/m3		93	70 - 130
cis-1,2-Dichloroethene	19.8	17.3		ug/m3		87	70 - 130
1,1-Dichloroethene	19.8	18.2		ug/m3		92	70 - 130
1,2-Dichloropropane	23.1	20.5		ug/m3		89	70 - 130
cis-1,3-Dichloropropene	22.7	19.6		ug/m3		87	70 - 130
trans-1,3-Dichloropropene	22.7	20.2		ug/m3		89	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	34.3		ug/m3		98	60 - 140
Ethylbenzene	21.7	17.7		ug/m3		81	70 - 130
Hexachlorobutadiene	53.3	42.5		ug/m3		80	60 - 140
Methylcyclohexane	20.1	16.5		ug/m3		82	20 - 180
Methylene chloride	17.4	15.6		ug/m3		90	70 - 130
Styrene	21.3	16.9		ug/m3		79	70 - 130
1,1,2,2-Tetrachloroethane	34.3	28.9		ug/m3		84	70 - 130
Tetrachloroethene	33.9	29.6		ug/m3		87	70 - 130
Toluene	18.8	15.8		ug/m3		84	70 - 130
1,2,4-Trichlorobenzene	37.1	28.3		ug/m3		76	60 - 140
1,1,1-Trichloroethane	27.3	25.9		ug/m3		95	70 - 130
1,1,2-Trichloroethane	27.3	23.4		ug/m3		86	70 - 130
Trichloroethene	26.9	23.2		ug/m3		86	70 - 130
Trichlorofluoromethane	28.1	28.3		ug/m3		101	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	36.5		ug/m3		95	70 - 130
1,2,4-Trimethylbenzene	24.6	20.7		ug/m3		84	70 - 130
1,3,5-Trimethylbenzene	24.6	20.0		ug/m3		81	70 - 130
Vinyl chloride	12.8	12.1		ug/m3		95	70 - 130
m-Xylene & p-Xylene	43.4	35.1		ug/m3		81	70 - 130
o-Xylene	21.7	17.6		ug/m3		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-56514/3
Matrix: Air
Analysis Batch: 56514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ppb v/v	MB Result ug/m3	MB Qualifier	RL	RL	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	14	57	U	14	14		06/03/13 16:40	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: MB 200-56514/3
Matrix: Air
Analysis Batch: 56514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	RL	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	57	57	U	57	57		06/03/13 16:40	1

Lab Sample ID: LCS 200-56514/2
Matrix: Air
Analysis Batch: 56514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH GRO as Octane (C5-C10)			10.0	14	U	ppb v/v		108	70 - 130		

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH GRO as Octane (C5-C10)			41	57	U	ug/m3		108	70 - 130		

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

GC/MS VOA

Analysis Batch: 3141041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3E180408001	AOI-09B-SVE-INF(051713)	Total	Air	TO-15	
H3E210000041B	Method Blank	Total	Air	TO-15	
H3E210000041C	Lab Control Sample	Total	Air	TO-15	

Analysis Batch: 3141049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3E180408002	AOI-09B-AS-OWS-INF(051713)	Total	Air	TO-15	
H3E210000049B	Method Blank	Total	Air	TO-15	
H3E210000049C	Lab Control Sample	Total	Air	TO-15	

Air - GC/MS VOA

Analysis Batch: 56514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-16759-1	AOI-09B-SVE-INF (051713)	Total/NA	Air	TO3	
200-16759-2	AOI-09B-AS-OWS-INF (051713)	Total/NA	Air	TO3	
LCS 200-56514/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-56514/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Client Sample ID: AOI-09B-SVE-INF (051713)

Lab Sample ID: 200-16759-1

Date Collected: 05/17/13 10:20
Matrix: Air
Date Received: 05/31/13 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		149	56514	06/04/13 02:20	PAD	TAL BUR

Client Sample ID: AOI-09B-AS-OWS-INF (051713)

Lab Sample ID: 200-16759-2

Date Collected: 05/17/13 10:35
Matrix: Air
Date Received: 05/31/13 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		21.4	56514	06/04/13 03:12	PAD	TAL BUR

Client Sample ID: AOI-09B-SVE-INF(051713)

Lab Sample ID: H3E180408001

Date Collected: 05/17/13 10:20
Matrix: Air
Date Received: 05/18/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		596.6	3141041	05/21/13 08:06	AB	TAL KNX

Client Sample ID: AOI-09B-AS-OWS-INF(051713)

Lab Sample ID: H3E180408002

Date Collected: 05/17/13 10:35
Matrix: Air
Date Received: 05/18/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		42.74	3141049	05/22/13 07:42	AB	TAL KNX

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-13
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-13
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	06-30-13
Nevada	State Program	9	TN00009	07-31-13
New Jersey	NELAP	2	TN001	06-30-13
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-13
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-30-13
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-13
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-13
USDA	Federal		P330-11-00035	01-20-14
Utah	NELAP	8	QUAN3	06-30-13
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-13
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-13

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-13
L-A-B	DoD ELAP		L2336	10-26-13
Louisiana	NELAP	6	176292	06-30-13
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-13
New York	NELAP	2	10391	04-01-14
Pennsylvania	NELAP	3	68-00489	04-30-14

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13
Virginia	NELAP	3	460209	12-14-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3E180408

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-16759-1	AOI-09B-SVE-INF (051713)	Air	05/17/13 10:20	05/31/13 10:25
200-16759-2	AOI-09B-AS-OWS-INF (051713)	Air	05/17/13 10:35	05/31/13 10:25
H3E180408001	AOI-09B-SVE-INF(051713)	Air	05/17/13 10:20	05/18/13 09:15
H3E180408002	AOI-09B-AS-OWS-INF(051713)	Air	05/17/13 10:35	05/18/13 09:15

Chain of Custody Record

1735160408

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	TONY MAFFEO	5/17/13	104295
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
28550 CABOT DR STE 500	248.994.2240		
City / **State** / **Zip Code**	**Site Contact** / **Lab Contact**		
NOVI / MI / 48377	TREVOR SWARTHOUT		
Project Name and Location (State)	**Carrier/Waybill Number**		
RACER BUICK CITY - FLINT, MI			
Contract/Purchase Order/Quote No.			
TREVOR SWARTHOUT - B0664410.2013.01500			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis (Attach list if more space is needed): TCL (Total Vocs)	TCL Vocs	Ethylene Glycol	MS TIC	Special Instructions/ Conditions of Receipt
AOI-09B-SVE-INF(051713)	5/17/13	1020	X				X						✓	-	✓		12646
AOI-09B-AS-OWS-INF(051713)	"	1035	X				X						✓	-	✓		6516
NO CUSTODY SEALS																	
RECEIVED AT AMBIENT TEMP																	
BKN 5-18-13																	
2 ADVES FEDEX 9044 0670 8320																	
2 CANS / 0 FLOWS																	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
	5/17/13	1400		5/17/13	1500
2. Relinquished By	Date	Time	2. Received By	Date	Time
	5/17/13	15:50		5/18/13	09:15
3. Relinquished By	Date	Time	3. Received By	Date	Time
				5/18/13	

Comments
SEND TO TEST AMERICA - KNOXVILLE, TN

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H3E180408

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	4A
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 91261 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 5-18-13

QA026R23.doc, 022812

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3E180408*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Can or Tedlar bag prep Time	Baro ID B2 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID B2 Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
3/19/13	1520	28.87	M0WC7	12646 ✓	-26.7	+1.4	3/20/13	x2	28.93	0	+29.8	+22.6						10535
↓	↓	↓	M0WC8	6516 ✓	-15.4	+0.8	↓	x1	↓	0	+29.9	+28.7						↓

M0WC8 → 3/20/13 IX1 28.84 pbar B2 ID 0 initial.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3F120437
Client Project/Site: B0064410.2013.01500
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attn: Andrea Krevinghaus

Authorized for release by:
7/11/2013 9:42:56 AM
Jamie McKinney, Project Manager
Jamie.McKinney@testamericainc.com

Designee for

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 7
Client Sample Results 9
Surrogate Summary 15
QC Sample Results 16
QC Association Summary 25
Lab Chronicle 26
Certification Summary 27
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 32

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
a	Spiked analyte recovery is outside stated control limits.
ME	The percent recovery of the analyte is outside the control limits but within marginal exceedance limits.
J	Estimated result. Result is less than RL.

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3F120437

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Subcontract

The following analyses were performed by the TestAmerica Burlington Laboratory (NELAP Accrediting Authority: NJDEP; Lab ID VT972), 30 Community Drive, Suite 11, South Burlington, VT 05403, (802) 660-1990, William Cicero, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

For this method, the continuing calibration verification standard and the LCS are the same sample. While the result for carbon tetrachloride is flagged as being outside limits for batch 3165013 and benzene and toluene for batch 3163057, the results met the acceptance criteria which allows for two analytes to be within marginal exceedence limits.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 6/13/13 exhibited a % difference of > 30% for 1,2,4-trichlorobenzene, the results were within the LCS acceptance limits.

Quantitation for methylcyclohexane was previously based on a one-point calibration standard at the reporting limit. Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.

PROJECT NARRATIVE
H3F120437

- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analyte is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3F120437

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: Racer Buick City

Report Number: 200-17140-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 06/20/2013; the samples arrived in good condition.

TOTAL VOLATILE ORGANIC CARBON

Samples AOI-09B-SVE-INF (061113) and AOI-09B-AS-OWS-INF (061113) were analyzed for total volatile organic carbon in accordance with EPA Method TO-3. The samples were analyzed on 06/25/2013.

Samples AOI-09B-SVE-INF (061113)[40.9X] and AOI-09B-AS-OWS-INF (061113)[13.6X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the TVOC analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Client Sample ID: AOI-09B-SVE-INF (061113) — Lab Sample ID: 200-17140-1

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	29000	120000		570	570	40.9	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	120000	120000		2300	2300	40.9	TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF (061113) — Lab Sample ID: 200-17140-2

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	6700	27000		190	190	13.6	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	27000	27000		780	780	13.6	TO3	Total/NA

Client Sample ID: AOI-09B-SVE-INF(061113) — Lab Sample ID: H3F120437001

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	1200	4000		100	29	510.06	TO-15	Total
Ethylbenzene	1400	6000		100	35	510.06	TO-15	Total
Methylcyclohexane	9900	40000		100	100	510.06	TO-15	Total
Methylene chloride	130	460	J	260	23	510.06	TO-15	Total
Tetrachloroethene	24	160	J	100	20	510.06	TO-15	Total
Toluene	3000	11000		100	28	510.06	TO-15	Total
Trichlorofluoromethane	15	83	J	100	12	510.06	TO-15	Total
1,2,4-Trimethylbenzene	1200	5700		100	32	510.06	TO-15	Total
1,3,5-Trimethylbenzene	340	1700		100	33	510.06	TO-15	Total
m-Xylene & p-Xylene	3500	15000		100	61	510.06	TO-15	Total
o-Xylene	1200	5400		100	31	510.06	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	4000	4000		330	91	510.06	TO-15	Total
Ethylbenzene	6000	6000		440	150	510.06	TO-15	Total
Methylcyclohexane	40000	40000		410	410	510.06	TO-15	Total
Methylene chloride	460	460	J	890	80	510.06	TO-15	Total
Tetrachloroethene	160	160	J	690	140	510.06	TO-15	Total
Toluene	11000	11000		380	100	510.06	TO-15	Total
Trichlorofluoromethane	83	83	J	570	69	510.06	TO-15	Total
1,2,4-Trimethylbenzene	5700	5700		500	160	510.06	TO-15	Total
1,3,5-Trimethylbenzene	1700	1700		500	160	510.06	TO-15	Total
m-Xylene & p-Xylene	15000	15000		440	270	510.06	TO-15	Total
o-Xylene	5400	5400		440	140	510.06	TO-15	Total

Client Sample ID: AOI-09B-AS-OWS-INF(061113) — Lab Sample ID: H3F120437002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	26	83		11	3.0	54.36	TO-15	Total
Ethylbenzene	130	570		11	3.7	54.36	TO-15	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample ID: AOI-09B-AS-OWS-INF(061113) (Continued)

Lab Sample ID: H3F120437002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Methylcyclohexane	920	3700		11	11	54.36	TO-15	Total
Methylene chloride	3.2	11	J	27	2.4	54.36	TO-15	Total
Toluene	180	690		11	2.9	54.36	TO-15	Total
1,2,4-Trimethylbenzene	170	850		11	3.4	54.36	TO-15	Total
1,3,5-Trimethylbenzene	49	240		11	3.5	54.36	TO-15	Total
m-Xylene & p-Xylene	360	1600		11	6.5	54.36	TO-15	Total
o-Xylene	120	520		11	3.3	54.36	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	83	83		35	9.7	54.36	TO-15	Total
Ethylbenzene	570	570		47	16	54.36	TO-15	Total
Methylcyclohexane	3700	3700		44	44	54.36	TO-15	Total
Methylene chloride	11	11	J	94	8.5	54.36	TO-15	Total
Toluene	690	690		41	11	54.36	TO-15	Total
1,2,4-Trimethylbenzene	850	850		53	17	54.36	TO-15	Total
1,3,5-Trimethylbenzene	240	240		53	17	54.36	TO-15	Total
m-Xylene & p-Xylene	1600	1600		47	28	54.36	TO-15	Total
o-Xylene	520	520		47	14	54.36	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Client Sample ID: AOI-09B-SVE-INF (061113)
Date Collected: 06/11/13 11:45
Date Received: 06/20/13 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 200-17140-1
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	29000	120000		570	570		06/25/13 15:12	40.9

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	120000	120000		2300	2300		06/25/13 15:12	40.9

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Client Sample ID: AOI-09B-AS-OWS-INF (061113)
Date Collected: 06/11/13 12:10
Date Received: 06/20/13 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 200-17140-2
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	6700	27000		190	190		06/25/13 16:05	13.6

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	27000	27000		780	780		06/25/13 16:05	13.6

Client Sample ID: AOI-09B-SVE-INF(061113)
Date Collected: 06/11/13 11:45
Date Received: 06/12/13 10:00

Lab Sample ID: H3F120437001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**1200**	**4000**		100	29		06/14/13 07:45	510.06
Benzyl chloride	ND	ND		200	40		06/14/13 07:45	510.06
Bromomethane	ND	ND		100	16		06/14/13 07:45	510.06
Carbon tetrachloride	ND	ND		100	19		06/14/13 07:45	510.06
Chlorobenzene	ND	ND		100	25		06/14/13 07:45	510.06
Chloroethane	ND	ND		100	18		06/14/13 07:45	510.06
Chloroform	ND	ND		100	19		06/14/13 07:45	510.06
Chloromethane	ND	ND		260	82		06/14/13 07:45	510.06
1,2-Dibromoethane (EDB)	ND	ND		100	22		06/14/13 07:45	510.06
1,2-Dichlorobenzene	ND	ND		100	36		06/14/13 07:45	510.06
1,3-Dichlorobenzene	ND	ND		100	33		06/14/13 07:45	510.06
1,4-Dichlorobenzene	ND	ND		100	33		06/14/13 07:45	510.06
Dichlorodifluoromethane	ND	ND		100	35		06/14/13 07:45	510.06
1,1-Dichloroethane	ND	ND		100	13		06/14/13 07:45	510.06
1,2-Dichloroethane	ND	ND		100	24		06/14/13 07:45	510.06
cis-1,2-Dichloroethene	ND	ND		100	31		06/14/13 07:45	510.06
1,1-Dichloroethene	ND	ND		100	17		06/14/13 07:45	510.06
1,2-Dichloropropane	ND	ND		100	27		06/14/13 07:45	510.06
cis-1,3-Dichloropropene	ND	ND		100	38		06/14/13 07:45	510.06
trans-1,3-Dichloropropene	ND	ND		100	24		06/14/13 07:45	510.06
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		100	16		06/14/13 07:45	510.06
Ethylbenzene	**1400**	**6000**		100	35		06/14/13 07:45	510.06
Hexachlorobutadiene	ND	ND		510	40		06/14/13 07:45	510.06
Methylcyclohexane	**9900**	**40000**		100	100		06/14/13 07:45	510.06
Methylene chloride	**130**	**460**	**J**	260	23		06/14/13 07:45	510.06
Styrene	ND	ND		100	30		06/14/13 07:45	510.06
1,1,2,2-Tetrachloroethane	ND	ND		100	31		06/14/13 07:45	510.06
Tetrachloroethene	**24**	**160**	**J**	100	20		06/14/13 07:45	510.06
Toluene	**3000**	**11000**		100	28		06/14/13 07:45	510.06
1,2,4-Trichlorobenzene	ND	ND		510	50		06/14/13 07:45	510.06
1,1,1-Trichloroethane	ND	ND		100	15		06/14/13 07:45	510.06
1,1,2-Trichloroethane	ND	ND		100	28		06/14/13 07:45	510.06
Trichloroethene	ND	ND		100	18		06/14/13 07:45	510.06
Trichlorofluoromethane	**15**	**83**	**J**	100	12		06/14/13 07:45	510.06
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		100	16		06/14/13 07:45	510.06
1,2,4-Trimethylbenzene	**1200**	**5700**		100	32		06/14/13 07:45	510.06
1,3,5-Trimethylbenzene	**340**	**1700**		100	33		06/14/13 07:45	510.06
Vinyl chloride	ND	ND		100	36		06/14/13 07:45	510.06
m-Xylene & p-Xylene	**3500**	**15000**		100	61		06/14/13 07:45	510.06
o-Xylene	**1200**	**5400**		100	31		06/14/13 07:45	510.06

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**4000**	**4000**		330	91		06/14/13 07:45	510.06
Benzyl chloride	ND	ND		1100	210		06/14/13 07:45	510.06
Bromomethane	ND	ND		400	63		06/14/13 07:45	510.06
Carbon tetrachloride	ND	ND		640	120		06/14/13 07:45	510.06
Chlorobenzene	ND	ND		470	110		06/14/13 07:45	510.06
Chloroethane	ND	ND		270	47		06/14/13 07:45	510.06

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Client Sample ID: AOI-09B-SVE-INF(061113)
Date Collected: 06/11/13 11:45
Date Received: 06/12/13 10:00

Lab Sample ID: H3F120437001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		500	95		06/14/13 07:45	510.06
Chloromethane	ND	ND		530	170		06/14/13 07:45	510.06
1,2-Dibromoethane (EDB)	ND	ND		780	170		06/14/13 07:45	510.06
1,2-Dichlorobenzene	ND	ND		610	210		06/14/13 07:45	510.06
1,3-Dichlorobenzene	ND	ND		610	200		06/14/13 07:45	510.06
1,4-Dichlorobenzene	ND	ND		610	200		06/14/13 07:45	510.06
Dichlorodifluoromethane	ND	ND		500	170		06/14/13 07:45	510.06
1,1-Dichloroethane	ND	ND		410	54		06/14/13 07:45	510.06
1,2-Dichloroethane	ND	ND		410	97		06/14/13 07:45	510.06
cis-1,2-Dichloroethene	ND	ND		400	120		06/14/13 07:45	510.06
1,1-Dichloroethene	ND	ND		400	69		06/14/13 07:45	510.06
1,2-Dichloropropane	ND	ND		470	120		06/14/13 07:45	510.06
cis-1,3-Dichloropropene	ND	ND		460	170		06/14/13 07:45	510.06
trans-1,3-Dichloropropene	ND	ND		460	110		06/14/13 07:45	510.06
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		710	110		06/14/13 07:45	510.06
Ethylbenzene	**6000**	**6000**		440	150		06/14/13 07:45	510.06
Hexachlorobutadiene	ND	ND		5400	420		06/14/13 07:45	510.06
Methylcyclohexane	**40000**	**40000**		410	410		06/14/13 07:45	510.06
Methylene chloride	**460**	**460**	**J**	890	80		06/14/13 07:45	510.06
Styrene	ND	ND		430	130		06/14/13 07:45	510.06
1,1,2,2-Tetrachloroethane	ND	ND		700	210		06/14/13 07:45	510.06
Tetrachloroethene	**160**	**160**	**J**	690	140		06/14/13 07:45	510.06
Toluene	**11000**	**11000**		380	100		06/14/13 07:45	510.06
1,2,4-Trichlorobenzene	ND	ND		3800	370		06/14/13 07:45	510.06
1,1,1-Trichloroethane	ND	ND		560	83		06/14/13 07:45	510.06
1,1,2-Trichloroethane	ND	ND		560	150		06/14/13 07:45	510.06
Trichloroethene	ND	ND		550	99		06/14/13 07:45	510.06
Trichlorofluoromethane	**83**	**83**	**J**	570	69		06/14/13 07:45	510.06
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		780	120		06/14/13 07:45	510.06
1,2,4-Trimethylbenzene	**5700**	**5700**		500	160		06/14/13 07:45	510.06
1,3,5-Trimethylbenzene	**1700**	**1700**		500	160		06/14/13 07:45	510.06
Vinyl chloride	ND	ND		260	93		06/14/13 07:45	510.06
m-Xylene & p-Xylene	**15000**	**15000**		440	270		06/14/13 07:45	510.06
o-Xylene	**5400**	**5400**		440	140		06/14/13 07:45	510.06

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*60 - 140*		*06/14/13 07:45*	*510.06*

Client Sample ID: AOI-09B-AS-OWS-INF(061113) **Lab Sample ID: H3F120437002**

Date Collected: 06/11/13 12:10 **Matrix: Air**

Date Received: 06/12/13 10:00

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**26**	**83**		11	3.0		06/13/13 09:33	54.36
Benzyl chloride	ND	ND		22	4.2		06/13/13 09:33	54.36
Bromomethane	ND	ND		11	1.7		06/13/13 09:33	54.36
Carbon tetrachloride	ND	ND		11	2.1		06/13/13 09:33	54.36
Chlorobenzene	ND	ND		11	2.7		06/13/13 09:33	54.36
Chloroethane	ND	ND		11	1.9		06/13/13 09:33	54.36
Chloroform	ND	ND		11	2.1		06/13/13 09:33	54.36
Chloromethane	ND	ND		27	8.7		06/13/13 09:33	54.36
1,2-Dibromoethane (EDB)	ND	ND		11	2.4		06/13/13 09:33	54.36
1,2-Dichlorobenzene	ND	ND		11	3.8		06/13/13 09:33	54.36
1,3-Dichlorobenzene	ND	ND		11	3.5		06/13/13 09:33	54.36
1,4-Dichlorobenzene	ND	ND		11	3.5		06/13/13 09:33	54.36
Dichlorodifluoromethane	ND	ND		11	3.7		06/13/13 09:33	54.36
1,1-Dichloroethane	ND	ND		11	1.4		06/13/13 09:33	54.36
1,2-Dichloroethane	ND	ND		11	2.6		06/13/13 09:33	54.36
cis-1,2-Dichloroethene	ND	ND		11	3.3		06/13/13 09:33	54.36
1,1-Dichloroethene	ND	ND		11	1.8		06/13/13 09:33	54.36
1,2-Dichloropropane	ND	ND		11	2.8		06/13/13 09:33	54.36
cis-1,3-Dichloropropene	ND	ND		11	4.0		06/13/13 09:33	54.36
trans-1,3-Dichloropropene	ND	ND		11	2.6		06/13/13 09:33	54.36
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		11	1.7		06/13/13 09:33	54.36
Ethylbenzene	**130**	**570**		11	3.7		06/13/13 09:33	54.36
Hexachlorobutadiene	ND	ND		54	4.2		06/13/13 09:33	54.36
Methylcyclohexane	**920**	**3700**		11	11		06/13/13 09:33	54.36
Methylene chloride	**3.2**	**11**	**J**	27	2.4		06/13/13 09:33	54.36
Styrene	ND	ND		11	3.2		06/13/13 09:33	54.36
1,1,2,2-Tetrachloroethane	ND	ND		11	3.3		06/13/13 09:33	54.36
Tetrachloroethene	ND	ND		11	2.2		06/13/13 09:33	54.36
Toluene	**180**	**690**		11	2.9		06/13/13 09:33	54.36
1,2,4-Trichlorobenzene	ND	ND		54	5.3		06/13/13 09:33	54.36
1,1,1-Trichloroethane	ND	ND		11	1.6		06/13/13 09:33	54.36
1,1,2-Trichloroethane	ND	ND		11	2.9		06/13/13 09:33	54.36
Trichloroethene	ND	ND		11	2.0		06/13/13 09:33	54.36
Trichlorofluoromethane	ND	ND		11	1.3		06/13/13 09:33	54.36
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		11	1.7		06/13/13 09:33	54.36
1,2,4-Trimethylbenzene	**170**	**850**		11	3.4		06/13/13 09:33	54.36
1,3,5-Trimethylbenzene	**49**	**240**		11	3.5		06/13/13 09:33	54.36
Vinyl chloride	ND	ND		11	3.9		06/13/13 09:33	54.36
m-Xylene & p-Xylene	**360**	**1600**		11	6.5		06/13/13 09:33	54.36
o-Xylene	**120**	**520**		11	3.3		06/13/13 09:33	54.36

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**83**	**83**		35	9.7		06/13/13 09:33	54.36
Benzyl chloride	ND	ND		110	22		06/13/13 09:33	54.36
Bromomethane	ND	ND		42	6.8		06/13/13 09:33	54.36
Carbon tetrachloride	ND	ND		68	13		06/13/13 09:33	54.36
Chlorobenzene	ND	ND		50	12		06/13/13 09:33	54.36
Chloroethane	ND	ND		29	5.0		06/13/13 09:33	54.36

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Client Sample ID: AOI-09B-AS-OWS-INF(061113)
Date Collected: 06/11/13 12:10
Date Received: 06/12/13 10:00

Lab Sample ID: H3F120437002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		53	10		06/13/13 09:33	54.36
Chloromethane	ND	ND		56	18		06/13/13 09:33	54.36
1,2-Dibromoethane (EDB)	ND	ND		84	18		06/13/13 09:33	54.36
1,2-Dichlorobenzene	ND	ND		65	23		06/13/13 09:33	54.36
1,3-Dichlorobenzene	ND	ND		65	21		06/13/13 09:33	54.36
1,4-Dichlorobenzene	ND	ND		65	21		06/13/13 09:33	54.36
Dichlorodifluoromethane	ND	ND		54	18		06/13/13 09:33	54.36
1,1-Dichloroethane	ND	ND		44	5.7		06/13/13 09:33	54.36
1,2-Dichloroethane	ND	ND		44	10		06/13/13 09:33	54.36
cis-1,2-Dichloroethene	ND	ND		43	13		06/13/13 09:33	54.36
1,1-Dichloroethene	ND	ND		43	7.3		06/13/13 09:33	54.36
1,2-Dichloropropane	ND	ND		50	13		06/13/13 09:33	54.36
cis-1,3-Dichloropropene	ND	ND		49	18		06/13/13 09:33	54.36
trans-1,3-Dichloropropene	ND	ND		49	12		06/13/13 09:33	54.36
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		76	12		06/13/13 09:33	54.36
Ethylbenzene	**570**	**570**		47	16		06/13/13 09:33	54.36
Hexachlorobutadiene	ND	ND		580	45		06/13/13 09:33	54.36
Methylcyclohexane	**3700**	**3700**		44	44		06/13/13 09:33	54.36
Methylene chloride	**11**	**11**	J	94	8.5		06/13/13 09:33	54.36
Styrene	ND	ND		46	13		06/13/13 09:33	54.36
1,1,2,2-Tetrachloroethane	ND	ND		75	23		06/13/13 09:33	54.36
Tetrachloroethene	ND	ND		74	15		06/13/13 09:33	54.36
Toluene	**690**	**690**		41	11		06/13/13 09:33	54.36
1,2,4-Trichlorobenzene	ND	ND		400	40		06/13/13 09:33	54.36
1,1,1-Trichloroethane	ND	ND		59	8.9		06/13/13 09:33	54.36
1,1,2-Trichloroethane	ND	ND		59	16		06/13/13 09:33	54.36
Trichloroethene	ND	ND		58	11		06/13/13 09:33	54.36
Trichlorofluoromethane	ND	ND		61	7.3		06/13/13 09:33	54.36
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		83	13		06/13/13 09:33	54.36
1,2,4-Trimethylbenzene	**850**	**850**		53	17		06/13/13 09:33	54.36
1,3,5-Trimethylbenzene	**240**	**240**		53	17		06/13/13 09:33	54.36
Vinyl chloride	ND	ND		28	9.9		06/13/13 09:33	54.36
m-Xylene & p-Xylene	**1600**	**1600**		47	28		06/13/13 09:33	54.36
o-Xylene	**520**	**520**		47	14		06/13/13 09:33	54.36

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*60 - 140*		*06/13/13 09:33*	*54.36*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
H3F120000057B	Method Blank	97							
H3F120000057C	Lab Control Sample	103							
H3F120437001	AOI-09B-SVE-INF(061113)	103							
H3F120437002	AOI-09B-AS-OWS-INF(061113)	101							
H3F140000013B	Method Blank	102							
H3F140000013C	Lab Control Sample	105							

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3F120000057B
Matrix: Air
Analysis Batch: 3163057

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		06/12/13 15:03	1
Benzyl chloride	ND	ND		0.40	0.078		06/12/13 15:03	1
Bromomethane	ND	ND		0.20	0.032		06/12/13 15:03	1
Carbon tetrachloride	ND	ND		0.20	0.038		06/12/13 15:03	1
Chlorobenzene	ND	ND		0.20	0.049		06/12/13 15:03	1
Chloroethane	ND	ND		0.20	0.035		06/12/13 15:03	1
Chloroform	ND	ND		0.20	0.038		06/12/13 15:03	1
Chloromethane	ND	ND		0.50	0.16		06/12/13 15:03	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		06/12/13 15:03	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		06/12/13 15:03	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		06/12/13 15:03	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		06/12/13 15:03	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		06/12/13 15:03	1
1,1-Dichloroethane	ND	ND		0.20	0.026		06/12/13 15:03	1
1,2-Dichloroethane	ND	ND		0.20	0.047		06/12/13 15:03	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		06/12/13 15:03	1
1,1-Dichloroethene	ND	ND		0.20	0.034		06/12/13 15:03	1
1,2-Dichloropropane	ND	ND		0.20	0.052		06/12/13 15:03	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		06/12/13 15:03	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		06/12/13 15:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		06/12/13 15:03	1
Ethylbenzene	ND	ND		0.20	0.068		06/12/13 15:03	1
Hexachlorobutadiene	ND	ND		1.0	0.078		06/12/13 15:03	1
Methylcyclohexane	ND	ND		0.20	0.20		06/12/13 15:03	1
Methylene chloride	ND	0.14		0.50	0.045		06/12/13 15:03	1
Styrene	ND	ND		0.20	0.058		06/12/13 15:03	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		06/12/13 15:03	1
Tetrachloroethene	ND	ND		0.20	0.040		06/12/13 15:03	1
Toluene	ND	ND		0.20	0.054		06/12/13 15:03	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		06/12/13 15:03	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		06/12/13 15:03	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		06/12/13 15:03	1
Trichloroethene	ND	ND		0.20	0.036		06/12/13 15:03	1
Trichlorofluoromethane	ND	ND		0.20	0.024		06/12/13 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		06/12/13 15:03	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		06/12/13 15:03	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		06/12/13 15:03	1
Vinyl chloride	ND	ND		0.20	0.071		06/12/13 15:03	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		06/12/13 15:03	1
o-Xylene	ND	ND		0.20	0.061		06/12/13 15:03	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		06/12/13 15:03	1
Benzyl chloride	ND	ND		2.1	0.40		06/12/13 15:03	1
Bromomethane	ND	ND		0.78	0.12		06/12/13 15:03	1
Carbon tetrachloride	ND	ND		1.3	0.24		06/12/13 15:03	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F120000057B
Matrix: Air
Analysis Batch: 3163057

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	ND		0.92	0.23		06/12/13 15:03	1
Chloroethane	ND	ND		0.53	0.092		06/12/13 15:03	1
Chloroform	ND	ND		0.98	0.19		06/12/13 15:03	1
Chloromethane	ND	ND		1.0	0.33		06/12/13 15:03	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		06/12/13 15:03	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		06/12/13 15:03	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		06/12/13 15:03	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		06/12/13 15:03	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		06/12/13 15:03	1
1,1-Dichloroethane	ND	ND		0.81	0.11		06/12/13 15:03	1
1,2-Dichloroethane	ND	ND		0.81	0.19		06/12/13 15:03	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		06/12/13 15:03	1
1,1-Dichloroethene	ND	ND		0.79	0.13		06/12/13 15:03	1
1,2-Dichloropropane	ND	ND		0.92	0.24		06/12/13 15:03	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		06/12/13 15:03	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		06/12/13 15:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		06/12/13 15:03	1
Ethylbenzene	ND	ND		0.87	0.30		06/12/13 15:03	1
Hexachlorobutadiene	ND	ND		11	0.83		06/12/13 15:03	1
Methylcyclohexane	ND	ND		0.80	0.80		06/12/13 15:03	1
Methylene chloride	0.14	0.14		1.7	0.16		06/12/13 15:03	1
Styrene	ND	ND		0.85	0.25		06/12/13 15:03	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		06/12/13 15:03	1
Tetrachloroethene	ND	ND		1.4	0.27		06/12/13 15:03	1
Toluene	ND	ND		0.75	0.20		06/12/13 15:03	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		06/12/13 15:03	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		06/12/13 15:03	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		06/12/13 15:03	1
Trichloroethene	ND	ND		1.1	0.19		06/12/13 15:03	1
Trichlorofluoromethane	ND	ND		1.1	0.13		06/12/13 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		06/12/13 15:03	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		06/12/13 15:03	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		06/12/13 15:03	1
Vinyl chloride	ND	ND		0.51	0.18		06/12/13 15:03	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		06/12/13 15:03	1
o-Xylene	ND	ND		0.87	0.26		06/12/13 15:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*60 - 140*		*06/12/13 15:03*	*1*

Lab Sample ID: H3F120000057C
Matrix: Air
Analysis Batch: 3163057

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	3.33	a ME	ppb(v/v)		67	70 - 130
Benzyl chloride	5.00	4.87		ppb(v/v)		97	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F120000057C
Matrix: Air
Analysis Batch: 3163057

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	5.00	5.20		ppb(v/v)		104	70 - 130
Carbon tetrachloride	5.00	5.88		ppb(v/v)		118	70 - 130
Chlorobenzene	5.00	3.67		ppb(v/v)		73	70 - 130
Chloroethane	5.00	5.45		ppb(v/v)		109	70 - 130
Chloroform	5.00	4.22		ppb(v/v)		84	70 - 130
Chloromethane	5.00	5.54		ppb(v/v)		111	60 - 140
1,2-Dibromoethane (EDB)	5.00	3.58		ppb(v/v)		72	70 - 130
1,2-Dichlorobenzene	5.00	4.06		ppb(v/v)		81	70 - 130
1,3-Dichlorobenzene	5.00	3.82		ppb(v/v)		76	70 - 130
1,4-Dichlorobenzene	5.00	3.76		ppb(v/v)		75	70 - 130
Dichlorodifluoromethane	5.00	5.76		ppb(v/v)		115	60 - 140
1,1-Dichloroethane	5.00	4.48		ppb(v/v)		90	70 - 130
1,2-Dichloroethane	5.00	4.12		ppb(v/v)		82	70 - 130
cis-1,2-Dichloroethene	5.00	4.07		ppb(v/v)		81	70 - 130
1,1-Dichloroethene	5.00	4.37		ppb(v/v)		87	70 - 130
1,2-Dichloropropane	5.00	3.74		ppb(v/v)		75	70 - 130
cis-1,3-Dichloropropene	5.00	3.87		ppb(v/v)		77	70 - 130
trans-1,3-Dichloropropene	5.00	4.08		ppb(v/v)		82	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.49		ppb(v/v)		110	60 - 140
Ethylbenzene	5.00	3.71		ppb(v/v)		74	70 - 130
Hexachlorobutadiene	5.00	4.09		ppb(v/v)		82	60 - 140
Methylcyclohexane	5.00	4.09		ppb(v/v)		82	20 - 180
Methylene chloride	5.00	4.32		ppb(v/v)		86	70 - 130
Styrene	5.00	3.76		ppb(v/v)		75	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.34		ppb(v/v)		87	70 - 130
Tetrachloroethene	5.00	4.04		ppb(v/v)		81	70 - 130
Toluene	5.00	3.38	a ME	ppb(v/v)		68	70 - 130
1,2,4-Trichlorobenzene	5.00	3.97		ppb(v/v)		79	60 - 140
1,1,1-Trichloroethane	5.00	4.60		ppb(v/v)		92	70 - 130
1,1,2-Trichloroethane	5.00	3.79		ppb(v/v)		76	70 - 130
Trichloroethene	5.00	4.22		ppb(v/v)		84	70 - 130
Trichlorofluoromethane	5.00	5.88		ppb(v/v)		118	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.59		ppb(v/v)		92	70 - 130
1,2,4-Trimethylbenzene	5.00	4.68		ppb(v/v)		94	70 - 130
1,3,5-Trimethylbenzene	5.00	4.43		ppb(v/v)		89	70 - 130
Vinyl chloride	5.00	5.34		ppb(v/v)		107	70 - 130
m-Xylene & p-Xylene	10.0	7.70		ppb(v/v)		77	70 - 130
o-Xylene	5.00	3.99		ppb(v/v)		80	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	10.7	a ME	ug/m3		67	70 - 130
Benzyl chloride	25.9	25.2		ug/m3		97	70 - 130
Bromomethane	19.4	20.2		ug/m3		104	70 - 130
Carbon tetrachloride	31.5	37.0		ug/m3		118	70 - 130
Chlorobenzene	23.0	16.8		ug/m3		73	70 - 130
Chloroethane	13.2	14.4		ug/m3		109	70 - 130
Chloroform	24.4	20.6		ug/m3		84	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F120000057C
Matrix: Air
Analysis Batch: 3163057

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.3	11.4		ug/m3		111	60 - 140
1,2-Dibromoethane (EDB)	38.4	27.5		ug/m3		72	70 - 130
1,2-Dichlorobenzene	30.1	24.4		ug/m3		81	70 - 130
1,3-Dichlorobenzene	30.1	23.0		ug/m3		76	70 - 130
1,4-Dichlorobenzene	30.1	22.6		ug/m3		75	70 - 130
Dichlorodifluoromethane	24.7	28.5		ug/m3		115	60 - 140
1,1-Dichloroethane	20.2	18.1		ug/m3		90	70 - 130
1,2-Dichloroethane	20.2	16.7		ug/m3		82	70 - 130
cis-1,2-Dichloroethene	19.8	16.1		ug/m3		81	70 - 130
1,1-Dichloroethene	19.8	17.3		ug/m3		87	70 - 130
1,2-Dichloropropane	23.1	17.3		ug/m3		75	70 - 130
cis-1,3-Dichloropropene	22.7	17.6		ug/m3		77	70 - 130
trans-1,3-Dichloropropene	22.7	18.5		ug/m3		82	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	38.4		ug/m3		110	60 - 140
Ethylbenzene	21.7	16.1		ug/m3		74	70 - 130
Hexachlorobutadiene	53.3	43.6		ug/m3		82	60 - 140
Methylcyclohexane	20.1	16.4		ug/m3		82	20 - 180
Methylene chloride	17.4	15.0		ug/m3		86	70 - 130
Styrene	21.3	16.0		ug/m3		75	70 - 130
1,1,2,2-Tetrachloroethane	34.3	29.8		ug/m3		87	70 - 130
Tetrachloroethene	33.9	27.4		ug/m3		81	70 - 130
Toluene	18.8	12.7	a ME	ug/m3		68	70 - 130
1,2,4-Trichlorobenzene	37.1	29.4		ug/m3		79	60 - 140
1,1,1-Trichloroethane	27.3	25.1		ug/m3		92	70 - 130
1,1,2-Trichloroethane	27.3	20.7		ug/m3		76	70 - 130
Trichloroethene	26.9	22.7		ug/m3		84	70 - 130
Trichlorofluoromethane	28.1	33.0		ug/m3		118	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	35.2		ug/m3		92	70 - 130
1,2,4-Trimethylbenzene	24.6	23.0		ug/m3		94	70 - 130
1,3,5-Trimethylbenzene	24.6	21.8		ug/m3		89	70 - 130
Vinyl chloride	12.8	13.6		ug/m3		107	70 - 130
m-Xylene & p-Xylene	43.4	33.4		ug/m3		77	70 - 130
o-Xylene	21.7	17.3		ug/m3		80	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*60 - 140*

Lab Sample ID: H3F140000013B
Matrix: Air
Analysis Batch: 3165013

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		06/13/13 16:33	1
Benzyl chloride	ND	ND		0.40	0.078		06/13/13 16:33	1
Bromomethane	ND	ND		0.20	0.032		06/13/13 16:33	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F140000013B
Matrix: Air
Analysis Batch: 3165013

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND	ND		0.20	0.038		06/13/13 16:33	1
Chlorobenzene	ND	ND		0.20	0.049		06/13/13 16:33	1
Chloroethane	ND	ND		0.20	0.035		06/13/13 16:33	1
Chloroform	ND	ND		0.20	0.038		06/13/13 16:33	1
Chloromethane	ND	ND		0.50	0.16		06/13/13 16:33	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		06/13/13 16:33	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		06/13/13 16:33	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		06/13/13 16:33	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		06/13/13 16:33	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		06/13/13 16:33	1
1,1-Dichloroethane	ND	ND		0.20	0.026		06/13/13 16:33	1
1,2-Dichloroethane	ND	ND		0.20	0.047		06/13/13 16:33	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		06/13/13 16:33	1
1,1-Dichloroethene	ND	ND		0.20	0.034		06/13/13 16:33	1
1,2-Dichloropropane	ND	ND		0.20	0.052		06/13/13 16:33	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		06/13/13 16:33	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		06/13/13 16:33	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		06/13/13 16:33	1
Ethylbenzene	ND	ND		0.20	0.068		06/13/13 16:33	1
Hexachlorobutadiene	ND	ND		1.0	0.078		06/13/13 16:33	1
Methylcyclohexane	ND	ND		0.20	0.20		06/13/13 16:33	1
Methylene chloride	ND	0.093		0.50	0.045		06/13/13 16:33	1
Styrene	ND	ND		0.20	0.058		06/13/13 16:33	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		06/13/13 16:33	1
Tetrachloroethene	ND	ND		0.20	0.040		06/13/13 16:33	1
Toluene	ND	ND		0.20	0.054		06/13/13 16:33	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		06/13/13 16:33	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		06/13/13 16:33	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		06/13/13 16:33	1
Trichloroethene	ND	ND		0.20	0.036		06/13/13 16:33	1
Trichlorofluoromethane	ND	ND		0.20	0.024		06/13/13 16:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		06/13/13 16:33	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		06/13/13 16:33	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		06/13/13 16:33	1
Vinyl chloride	ND	ND		0.20	0.071		06/13/13 16:33	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		06/13/13 16:33	1
o-Xylene	ND	ND		0.20	0.061		06/13/13 16:33	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		06/13/13 16:33	1
Benzyl chloride	ND	ND		2.1	0.40		06/13/13 16:33	1
Bromomethane	ND	ND		0.78	0.12		06/13/13 16:33	1
Carbon tetrachloride	ND	ND		1.3	0.24		06/13/13 16:33	1
Chlorobenzene	ND	ND		0.92	0.23		06/13/13 16:33	1
Chloroethane	ND	ND		0.53	0.092		06/13/13 16:33	1
Chloroform	ND	ND		0.98	0.19		06/13/13 16:33	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F140000013B
Matrix: Air
Analysis Batch: 3165013

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	MDL	Prepared	Analyzed	Dil Fac
Chloromethane	ND	ND		1.0	0.33		06/13/13 16:33	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		06/13/13 16:33	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		06/13/13 16:33	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		06/13/13 16:33	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		06/13/13 16:33	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		06/13/13 16:33	1
1,1-Dichloroethane	ND	ND		0.81	0.11		06/13/13 16:33	1
1,2-Dichloroethane	ND	ND		0.81	0.19		06/13/13 16:33	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		06/13/13 16:33	1
1,1-Dichloroethene	ND	ND		0.79	0.13		06/13/13 16:33	1
1,2-Dichloropropane	ND	ND		0.92	0.24		06/13/13 16:33	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		06/13/13 16:33	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		06/13/13 16:33	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		06/13/13 16:33	1
Ethylbenzene	ND	ND		0.87	0.30		06/13/13 16:33	1
Hexachlorobutadiene	ND	ND		11	0.83		06/13/13 16:33	1
Methylcyclohexane	ND	ND		0.80	0.80		06/13/13 16:33	1
Methylene chloride	0.093	0.093		1.7	0.16		06/13/13 16:33	1
Styrene	ND	ND		0.85	0.25		06/13/13 16:33	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		06/13/13 16:33	1
Tetrachloroethene	ND	ND		1.4	0.27		06/13/13 16:33	1
Toluene	ND	ND		0.75	0.20		06/13/13 16:33	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		06/13/13 16:33	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		06/13/13 16:33	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		06/13/13 16:33	1
Trichloroethene	ND	ND		1.1	0.19		06/13/13 16:33	1
Trichlorofluoromethane	ND	ND		1.1	0.13		06/13/13 16:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		06/13/13 16:33	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		06/13/13 16:33	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		06/13/13 16:33	1
Vinyl chloride	ND	ND		0.51	0.18		06/13/13 16:33	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		06/13/13 16:33	1
o-Xylene	ND	ND		0.87	0.26		06/13/13 16:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*60 - 140*		*06/13/13 16:33*	*1*

Lab Sample ID: H3F140000013C
Matrix: Air
Analysis Batch: 3165013

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	3.95		ppb(v/v)		79	70 - 130
Benzyl chloride	5.00	4.61		ppb(v/v)		92	70 - 130
Bromomethane	5.00	5.37		ppb(v/v)		107	70 - 130
Carbon tetrachloride	5.00	6.66	a ME	ppb(v/v)		133	70 - 130
Chlorobenzene	5.00	4.11		ppb(v/v)		82	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F140000013C
Matrix: Air
Analysis Batch: 3165013

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	5.00	5.61		ppb(v/v)		112	70 - 130
Chloroform	5.00	4.64		ppb(v/v)		93	70 - 130
Chloromethane	5.00	5.80		ppb(v/v)		116	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.02		ppb(v/v)		80	70 - 130
1,2-Dichlorobenzene	5.00	3.87		ppb(v/v)		77	70 - 130
1,3-Dichlorobenzene	5.00	3.69		ppb(v/v)		74	70 - 130
1,4-Dichlorobenzene	5.00	3.61		ppb(v/v)		72	70 - 130
Dichlorodifluoromethane	5.00	6.03		ppb(v/v)		121	60 - 140
1,1-Dichloroethane	5.00	4.85		ppb(v/v)		97	70 - 130
1,2-Dichloroethane	5.00	4.92		ppb(v/v)		98	70 - 130
cis-1,2-Dichloroethene	5.00	4.46		ppb(v/v)		89	70 - 130
1,1-Dichloroethene	5.00	4.53		ppb(v/v)		91	70 - 130
1,2-Dichloropropane	5.00	4.36		ppb(v/v)		87	70 - 130
cis-1,3-Dichloropropene	5.00	4.42		ppb(v/v)		88	70 - 130
trans-1,3-Dichloropropene	5.00	4.48		ppb(v/v)		90	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.70		ppb(v/v)		114	60 - 140
Ethylbenzene	5.00	3.97		ppb(v/v)		79	70 - 130
Hexachlorobutadiene	5.00	3.70		ppb(v/v)		74	60 - 140
Methylcyclohexane	5.00	4.72		ppb(v/v)		94	20 - 180
Methylene chloride	5.00	4.45		ppb(v/v)		89	70 - 130
Styrene	5.00	3.92		ppb(v/v)		78	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.33		ppb(v/v)		87	70 - 130
Tetrachloroethene	5.00	4.44		ppb(v/v)		89	70 - 130
Toluene	5.00	3.80		ppb(v/v)		76	70 - 130
1,2,4-Trichlorobenzene	5.00	3.30		ppb(v/v)		66	60 - 140
1,1,1-Trichloroethane	5.00	5.06		ppb(v/v)		101	70 - 130
1,1,2-Trichloroethane	5.00	4.25		ppb(v/v)		85	70 - 130
Trichloroethene	5.00	4.44		ppb(v/v)		89	70 - 130
Trichlorofluoromethane	5.00	6.24		ppb(v/v)		125	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.74		ppb(v/v)		95	70 - 130
1,2,4-Trimethylbenzene	5.00	4.60		ppb(v/v)		92	70 - 130
1,3,5-Trimethylbenzene	5.00	4.35		ppb(v/v)		87	70 - 130
Vinyl chloride	5.00	5.47		ppb(v/v)		109	70 - 130
m-Xylene & p-Xylene	10.0	8.06		ppb(v/v)		81	70 - 130
o-Xylene	5.00	4.13		ppb(v/v)		83	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	12.6		ug/m3		79	70 - 130
Benzyl chloride	25.9	23.9		ug/m3		92	70 - 130
Bromomethane	19.4	20.8		ug/m3		107	70 - 130
Carbon tetrachloride	31.5	41.9	a ME	ug/m3		133	70 - 130
Chlorobenzene	23.0	18.9		ug/m3		82	70 - 130
Chloroethane	13.2	14.8		ug/m3		112	70 - 130
Chloroform	24.4	22.6		ug/m3		93	70 - 130
Chloromethane	10.3	12.0		ug/m3		116	60 - 140
1,2-Dibromoethane (EDB)	38.4	30.9		ug/m3		80	70 - 130
1,2-Dichlorobenzene	30.1	23.3		ug/m3		77	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3F140000013C
Matrix: Air
Analysis Batch: 3165013

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	30.1	22.2		ug/m3		74	70 - 130
1,4-Dichlorobenzene	30.1	21.7		ug/m3		72	70 - 130
Dichlorodifluoromethane	24.7	29.8		ug/m3		121	60 - 140
1,1-Dichloroethane	20.2	19.6		ug/m3		97	70 - 130
1,2-Dichloroethane	20.2	19.9		ug/m3		98	70 - 130
cis-1,2-Dichloroethene	19.8	17.7		ug/m3		89	70 - 130
1,1-Dichloroethene	19.8	17.9		ug/m3		91	70 - 130
1,2-Dichloropropane	23.1	20.2		ug/m3		87	70 - 130
cis-1,3-Dichloropropene	22.7	20.1		ug/m3		88	70 - 130
trans-1,3-Dichloropropene	22.7	20.4		ug/m3		90	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	39.9		ug/m3		114	60 - 140
Ethylbenzene	21.7	17.2		ug/m3		79	70 - 130
Hexachlorobutadiene	53.3	39.4		ug/m3		74	60 - 140
Methylcyclohexane	20.1	18.9		ug/m3		94	20 - 180
Methylene chloride	17.4	15.5		ug/m3		89	70 - 130
Styrene	21.3	16.7		ug/m3		78	70 - 130
1,1,2,2-Tetrachloroethane	34.3	29.7		ug/m3		87	70 - 130
Tetrachloroethene	33.9	30.1		ug/m3		89	70 - 130
Toluene	18.8	14.3		ug/m3		76	70 - 130
1,2,4-Trichlorobenzene	37.1	24.5		ug/m3		66	60 - 140
1,1,1-Trichloroethane	27.3	27.6		ug/m3		101	70 - 130
1,1,2-Trichloroethane	27.3	23.2		ug/m3		85	70 - 130
Trichloroethene	26.9	23.9		ug/m3		89	70 - 130
Trichlorofluoromethane	28.1	35.1		ug/m3		125	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	36.4		ug/m3		95	70 - 130
1,2,4-Trimethylbenzene	24.6	22.6		ug/m3		92	70 - 130
1,3,5-Trimethylbenzene	24.6	21.4		ug/m3		87	70 - 130
Vinyl chloride	12.8	14.0		ug/m3		109	70 - 130
m-Xylene & p-Xylene	43.4	35.0		ug/m3		81	70 - 130
o-Xylene	21.7	17.9		ug/m3		83	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-57635/3
Matrix: Air
Analysis Batch: 57635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ppb v/v	MB Result ug/m3	MB Qualifier	RL	RL	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	14	57	U	14	14		06/25/13 14:19	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: MB 200-57635/3
Matrix: Air
Analysis Batch: 57635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL	RL	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	57	57	U	57	57		06/25/13 14:19	1

Lab Sample ID: LCS 200-57635/2
Matrix: Air
Analysis Batch: 57635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH GRO as Octane (C5-C10)			10.0	14	U	ppb v/v		94	70 - 130		

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH GRO as Octane (C5-C10)			41	57	U	ug/m3		94	70 - 130		

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

GC/MS VOA

Analysis Batch: 3163057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3F120000057B	Method Blank	Total	Air	TO-15	
H3F120000057C	Lab Control Sample	Total	Air	TO-15	
H3F120437002	AOI-09B-AS-OWS-INF(061113)	Total	Air	TO-15	

Analysis Batch: 3165013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3F120437001	AOI-09B-SVE-INF(061113)	Total	Air	TO-15	
H3F140000013B	Method Blank	Total	Air	TO-15	
H3F140000013C	Lab Control Sample	Total	Air	TO-15	

Air - GC/MS VOA

Analysis Batch: 57635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-17140-1	AOI-09B-SVE-INF (061113)	Total/NA	Air	TO3	
200-17140-2	AOI-09B-AS-OWS-INF (061113)	Total/NA	Air	TO3	
LCS 200-57635/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-57635/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Client Sample ID: AOI-09B-SVE-INF (061113)

Lab Sample ID: 200-17140-1

Date Collected: 06/11/13 11:45

Matrix: Air

Date Received: 06/20/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		40.9	57635	06/25/13 15:12	WRD	TAL BUR

Client Sample ID: AOI-09B-AS-OWS-INF (061113)

Lab Sample ID: 200-17140-2

Date Collected: 06/11/13 12:10

Matrix: Air

Date Received: 06/20/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		13.6	57635	06/25/13 16:05	WRD	TAL BUR

Client Sample ID: AOI-09B-SVE-INF(061113)

Lab Sample ID: H3F120437001

Date Collected: 06/11/13 11:45

Matrix: Air

Date Received: 06/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		510.06	3165013	06/14/13 07:45	AB	TAL KNX

Client Sample ID: AOI-09B-AS-OWS-INF(061113)

Lab Sample ID: H3F120437002

Date Collected: 06/11/13 12:10

Matrix: Air

Date Received: 06/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		54.36	3163057	06/13/13 09:33	HT	TAL KNX

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-13
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-14
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	04-13-14
Nevada	State Program	9	TN00009	07-31-13
New Jersey	NELAP	2	TN001	06-30-13
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-13
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-30-13
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-13
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-13
USDA	Federal		P330-11-00035	01-20-14
Utah	NELAP	8	QUAN3	06-30-13
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-14
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-13

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-14
L-A-B	DoD ELAP		L2336	10-26-13
Louisiana	NELAP	6	176292	06-30-14
Maine	State Program	1	VT00008	04-15-15
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New York	NELAP	2	10391	04-01-14
Pennsylvania	NELAP	3	68-00489	04-30-14

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13
Virginia	NELAP	3	460209	12-14-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3F120437

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-17140-1	AOI-09B-SVE-INF (061113)	Air	06/11/13 11:45	06/20/13 10:30
200-17140-2	AOI-09B-AS-OWS-INF (061113)	Air	06/11/13 12:10	06/20/13 10:30
H3F120437001	AOI-09B-SVE-INF(061113)	Air	06/11/13 11:45	06/12/13 10:00
H3F120437002	AOI-09B-AS-OWS-INF(061113)	Air	06/11/13 12:10	06/12/13 10:00

[redacted]

H3F120437

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
ARCADIS	TONY MATTEO	6/11/13	104275
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
28550 CABOT DR STE 500	248-994-2240		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
NOVI / MI / 48377	TREVOR SWARTHOUT		
Project Name and Location (State)	**Carrier/Waybill Number**		
RACER BUICK CITY - FLINT, MI	—		
Contract/Purchase Order/Quote No.			
TREVOR SWARTHOUT B00614416.2013.00506			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TO-3 (TOTAL BTEX)	CS-140	TO-15 w/ MEDIUM VOLUME (HERON MS TEC)	Special Instructions/ Conditions of Receipt
AOI-09B-SVE-INF(061113)	6/11/13	1145	X				X						X		X	00039
AOI-04B-AS-OWS-INF(061113)	6/11/13	1210	X				X						X		X	12326
																1 Box Reid @ Ambient Temp without custody Seal 6/12/13
																1 Box Fed x # 9044 0671 0205
																2 cans / no flows

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	6/11/13	1500	1. Received By	6/11/13	1500
2. Relinquished By	6/11/13	1501	2. Received By	6/12/13	1000
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 43F120437

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

Quote #: 91261 PM Instructions: _____

Sample Receiving Associate: _____ Date: 6/12/13

QA026R23.doc, 022812

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3F120437*

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Can or Tedlar bag prep Time	Baro ID B2 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID B2 Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
JV 6/12/13	1630	28.78	M04KM	0039	-18.7	+6.1	JV 6/12/13	S	28.78						28181	10	+7.9	10547
↓	↓	↓	M04KN	12326	-17.7	+6.8	↓	X1	↓	0	+35.8							↓

1L transfer ⇒ df/6 can

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3G190411
Client Project/Site: B0064410.2013.01500
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attn: Andrea Krevinghaus

Authorized for release by:
8/12/2013 4:07:16 PM

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 7
Client Sample Results 9
Surrogate Summary 15
QC Sample Results 16
QC Association Summary 21
Certification Summary 22
Method Summary 24
Sample Summary 25
Chain of Custody 26
Receipt Checklists 27

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
D	Result was obtained from the analysis of a dilution.

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3G190411

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Subcontract

The following analyses were performed by the TestAmerica Burlington Laboratory (NELAP Accrediting Authority: NJDEP; Lab ID VT972), 30 Community Drive, Suite 11, South Burlington, VT 05403, (802) 660-1990, William Cicero, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 7/19/13 exhibited a % difference of > 30% for 1,2-dichloro-1,1,2,2-tetrafluoroethane, the results were within the LCS acceptance limits.

The concentration of methylcyclohexane in sample AO1-09B-SVE-INF(071713) exceeded the calibration level of the instrument. The sample was analyzed at a dilution to bring the concentration of the compound into the instrument calibration range. The results for both analyses are reported in order to provide the lowest possible reporting limits.

Quantitation for methylcyclohexane was previously based on a one-point calibration standard at the reporting limit. Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.

PROJECT NARRATIVE
H3G190411

- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3G190411

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: Racer Buick City

Report Number: 200-17674-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 07/26/2013; the samples arrived in good condition.

TPH - GRO

Samples AOI-09B-SVE-INF (071713) and AOI-09B-AS-OWS-INF (071713) were analyzed for TPH-GRO in accordance with EPA Method TO-3. The samples were analyzed on 07/30/2013.

Samples AOI-09B-SVE-INF (071713)[586X] and AOI-09B-AS-OWS-INF (071713)[53.9X] required dilution prior to analysis. The reporting limits have been adjusted accordingly. The canister dilution factors provided by TestAmerica Knoxville were used to calculate the sample results.

No difficulties were encountered during the GRO analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-SVE-INF (071713) — Lab Sample ID: 200-17674-1

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	560000	2300000		8200	8200	586	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	2300000	2300000		34000	34000	586	TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF (071713) — Lab Sample ID: 200-17674-2

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	49000	200000		750	750	53.9	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	200000	200000		3100	3100	53.9	TO3	Total/NA

Client Sample ID: AOI-09B-SVE-INF(071713) — Lab Sample ID: H3G190411001

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	1800	5600		100	28	502.5	TO-15	Total
Ethylbenzene	2300	10000		100	34	502.5	TO-15	Total
Methylcyclohexane	22000	89000	E	100	100	502.5	TO-15	Total
Methylcyclohexane	21000	86000	D	180	180	879.4	TO-15	Total
Methylene chloride	39	130	J B	250	23	502.5	TO-15	Total
Toluene	3800	14000		100	27	502.5	TO-15	Total
1,2,4-Trimethylbenzene	2100	11000		100	32	502.5	TO-15	Total
1,3,5-Trimethylbenzene	660	3200		100	33	502.5	TO-15	Total
m-Xylene & p-Xylene	5500	24000		100	60	502.5	TO-15	Total
o-Xylene	1800	7700		100	31	502.5	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	5600	5600		320	90	502.5	TO-15	Total
Ethylbenzene	10000	10000		440	150	502.5	TO-15	Total
Methylcyclohexane	89000	89000	E	400	400	502.5	TO-15	Total
Methylcyclohexane	86000	86000	D	710	710	879.4	TO-15	Total
Methylene chloride	130	130	J B	870	79	502.5	TO-15	Total
Toluene	14000	14000		380	100	502.5	TO-15	Total
1,2,4-Trimethylbenzene	11000	11000		490	160	502.5	TO-15	Total
1,3,5-Trimethylbenzene	3200	3200		490	160	502.5	TO-15	Total
m-Xylene & p-Xylene	24000	24000		440	260	502.5	TO-15	Total
o-Xylene	7700	7700		440	130	502.5	TO-15	Total

Client Sample ID: AOI-09B-AS-OWS-INF(071713) — Lab Sample ID: H3G190411002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	800	2600		29	8.2	146.23	TO-15	Total
Ethylbenzene	1700	7500		29	9.9	146.23	TO-15	Total
Methylcyclohexane	4200	17000		29	29	146.23	TO-15	Total
Methylene chloride	10	36	J B	73	6.6	146.23	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client Sample ID: AOI-09B-AS-OWS-INF(071713) (Continued)

Lab Sample ID: H3G190411002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Styrene	13	54	J	29	8.5	146.23	TO-15	Total
Toluene	2300	8800		29	7.9	146.23	TO-15	Total
1,2,4-Trimethylbenzene	3100	15000		29	9.2	146.23	TO-15	Total
1,3,5-Trimethylbenzene	870	4300		29	9.5	146.23	TO-15	Total
m-Xylene & p-Xylene	5700	25000		29	18	146.23	TO-15	Total
o-Xylene	2300	10000		29	8.9	146.23	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	2600	2600		93	26	146.23	TO-15	Total
Ethylbenzene	7500	7500		130	43	146.23	TO-15	Total
Methylcyclohexane	17000	17000		120	120	146.23	TO-15	Total
Methylene chloride	36	36	J B	250	23	146.23	TO-15	Total
Styrene	54	54	J	120	36	146.23	TO-15	Total
Toluene	8800	8800		110	30	146.23	TO-15	Total
1,2,4-Trimethylbenzene	15000	15000		140	45	146.23	TO-15	Total
1,3,5-Trimethylbenzene	4300	4300		140	47	146.23	TO-15	Total
m-Xylene & p-Xylene	25000	25000		130	76	146.23	TO-15	Total
o-Xylene	10000	10000		130	39	146.23	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-SVE-INF (071713)
Date Collected: 07/17/13 13:00
Date Received: 07/26/13 09:30
Sample Container: Summa Canister 6L

Lab Sample ID: 200-17674-1
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	560000	2300000		8200	8200		07/30/13 15:12	586

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	2300000	2300000		34000	34000		07/30/13 15:12	586

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-AS-OWS-INF (071713)
Date Collected: 07/17/13 13:30
Date Received: 07/26/13 09:30
Sample Container: Summa Canister 6L

Lab Sample ID: 200-17674-2
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	49000	200000		750	750		07/30/13 15:59	53.9

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	200000	200000		3100	3100		07/30/13 15:59	53.9

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-SVE-INF(071713)
Date Collected: 07/17/13 13:00
Date Received: 07/19/13 10:00

Lab Sample ID: H3G190411001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**1800**	**5600**		100	28		07/20/13 01:15	502.5
Benzyl chloride	ND	ND		200	39		07/20/13 01:15	502.5
Bromomethane	ND	ND		100	16		07/20/13 01:15	502.5
Carbon tetrachloride	ND	ND		100	19		07/20/13 01:15	502.5
Chlorobenzene	ND	ND		100	25		07/20/13 01:15	502.5
Chloroethane	ND	ND		100	18		07/20/13 01:15	502.5
Chloroform	ND	ND		100	19		07/20/13 01:15	502.5
Chloromethane	ND	ND		250	80		07/20/13 01:15	502.5
1,2-Dibromoethane (EDB)	ND	ND		100	22		07/20/13 01:15	502.5
1,2-Dichlorobenzene	ND	ND		100	35		07/20/13 01:15	502.5
1,3-Dichlorobenzene	ND	ND		100	33		07/20/13 01:15	502.5
1,4-Dichlorobenzene	ND	ND		100	32		07/20/13 01:15	502.5
Dichlorodifluoromethane	ND	ND		100	34		07/20/13 01:15	502.5
1,1-Dichloroethane	ND	ND		100	13		07/20/13 01:15	502.5
1,2-Dichloroethane	ND	ND		100	24		07/20/13 01:15	502.5
cis-1,2-Dichloroethene	ND	ND		100	30		07/20/13 01:15	502.5
1,1-Dichloroethene	ND	ND		100	17		07/20/13 01:15	502.5
1,2-Dichloropropane	ND	ND		100	26		07/20/13 01:15	502.5
cis-1,3-Dichloropropene	ND	ND		100	37		07/20/13 01:15	502.5
trans-1,3-Dichloropropene	ND	ND		100	24		07/20/13 01:15	502.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		100	16		07/20/13 01:15	502.5
Ethylbenzene	**2300**	**10000**		100	34		07/20/13 01:15	502.5
Hexachlorobutadiene	ND	ND		500	39		07/20/13 01:15	502.5
Methylcyclohexane	**22000**	**89000**	**E**	100	100		07/20/13 01:15	502.5
Methylcyclohexane	**21000**	**86000**	**D**	180	180		07/20/13 12:50	879.4
Methylene chloride	**39**	**130**	**J B**	250	23		07/20/13 01:15	502.5
Styrene	ND	ND		100	29		07/20/13 01:15	502.5
1,1,2,2-Tetrachloroethane	ND	ND		100	31		07/20/13 01:15	502.5
Tetrachloroethene	ND	ND		100	20		07/20/13 01:15	502.5
Toluene	**3800**	**14000**		100	27		07/20/13 01:15	502.5
1,2,4-Trichlorobenzene	ND	ND		500	49		07/20/13 01:15	502.5
1,1,1-Trichloroethane	ND	ND		100	15		07/20/13 01:15	502.5
1,1,2-Trichloroethane	ND	ND		100	27		07/20/13 01:15	502.5
Trichloroethene	ND	ND		100	18		07/20/13 01:15	502.5
Trichlorofluoromethane	ND	ND		100	12		07/20/13 01:15	502.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		100	16		07/20/13 01:15	502.5
1,2,4-Trimethylbenzene	**2100**	**11000**		100	32		07/20/13 01:15	502.5
1,3,5-Trimethylbenzene	**660**	**3200**		100	33		07/20/13 01:15	502.5
Vinyl chloride	ND	ND		100	36		07/20/13 01:15	502.5
m-Xylene & p-Xylene	**5500**	**24000**		100	60		07/20/13 01:15	502.5
o-Xylene	**1800**	**7700**		100	31		07/20/13 01:15	502.5

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**5600**	**5600**		320	90		07/20/13 01:15	502.5
Benzyl chloride	ND	ND		1000	200		07/20/13 01:15	502.5
Bromomethane	ND	ND		390	62		07/20/13 01:15	502.5
Carbon tetrachloride	ND	ND		630	120		07/20/13 01:15	502.5
Chlorobenzene	ND	ND		460	110		07/20/13 01:15	502.5

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-SVE-INF(071713)
Date Collected: 07/17/13 13:00
Date Received: 07/19/13 10:00

Lab Sample ID: H3G190411001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroethane	ND	ND		270	46		07/20/13 01:15	502.5
Chloroform	ND	ND		490	93		07/20/13 01:15	502.5
Chloromethane	ND	ND		520	170		07/20/13 01:15	502.5
1,2-Dibromoethane (EDB)	ND	ND		770	170		07/20/13 01:15	502.5
1,2-Dichlorobenzene	ND	ND		600	210		07/20/13 01:15	502.5
1,3-Dichlorobenzene	ND	ND		600	200		07/20/13 01:15	502.5
1,4-Dichlorobenzene	ND	ND		600	190		07/20/13 01:15	502.5
Dichlorodifluoromethane	ND	ND		500	170		07/20/13 01:15	502.5
1,1-Dichloroethane	ND	ND		410	53		07/20/13 01:15	502.5
1,2-Dichloroethane	ND	ND		410	96		07/20/13 01:15	502.5
cis-1,2-Dichloroethene	ND	ND		400	120		07/20/13 01:15	502.5
1,1-Dichloroethene	ND	ND		400	68		07/20/13 01:15	502.5
1,2-Dichloropropane	ND	ND		460	120		07/20/13 01:15	502.5
cis-1,3-Dichloropropene	ND	ND		460	170		07/20/13 01:15	502.5
trans-1,3-Dichloropropene	ND	ND		460	110		07/20/13 01:15	502.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		700	110		07/20/13 01:15	502.5
Ethylbenzene	**10000**	**10000**		440	150		07/20/13 01:15	502.5
Hexachlorobutadiene	ND	ND		5400	420		07/20/13 01:15	502.5
Methylcyclohexane	**89000**	**89000**	**E**	400	400		07/20/13 01:15	502.5
Methylcyclohexane	**86000**	**86000**	**D**	710	710		07/20/13 12:50	879.4
Methylene chloride	**130**	**130**	**J B**	870	79		07/20/13 01:15	502.5
Styrene	ND	ND		430	120		07/20/13 01:15	502.5
1,1,2,2-Tetrachloroethane	ND	ND		690	210		07/20/13 01:15	502.5
Tetrachloroethene	ND	ND		680	140		07/20/13 01:15	502.5
Toluene	**14000**	**14000**		380	100		07/20/13 01:15	502.5
1,2,4-Trichlorobenzene	ND	ND		3700	370		07/20/13 01:15	502.5
1,1,1-Trichloroethane	ND	ND		550	82		07/20/13 01:15	502.5
1,1,2-Trichloroethane	ND	ND		550	150		07/20/13 01:15	502.5
Trichloroethene	ND	ND		540	97		07/20/13 01:15	502.5
Trichlorofluoromethane	ND	ND		560	68		07/20/13 01:15	502.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		770	120		07/20/13 01:15	502.5
1,2,4-Trimethylbenzene	**11000**	**11000**		490	160		07/20/13 01:15	502.5
1,3,5-Trimethylbenzene	**3200**	**3200**		490	160		07/20/13 01:15	502.5
Vinyl chloride	ND	ND		260	91		07/20/13 01:15	502.5
m-Xylene & p-Xylene	**24000**	**24000**		440	260		07/20/13 01:15	502.5
o-Xylene	**7700**	**7700**		440	130		07/20/13 01:15	502.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*60 - 140*		*07/20/13 01:15*	*502.5*
4-Bromofluorobenzene	*89*		*60 - 140*		*07/20/13 12:50*	*879.4*

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-AS-OWS-INF(071713) **Lab Sample ID: H3G190411002**
Date Collected: 07/17/13 13:30 **Matrix: Air**
Date Received: 07/19/13 10:00

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**800**	**2600**		29	8.2		07/20/13 01:59	146.23
Benzyl chloride	ND	ND		58	11		07/20/13 01:59	146.23
Bromomethane	ND	ND		29	4.7		07/20/13 01:59	146.23
Carbon tetrachloride	ND	ND		29	5.6		07/20/13 01:59	146.23
Chlorobenzene	ND	ND		29	7.2		07/20/13 01:59	146.23
Chloroethane	ND	ND		29	5.1		07/20/13 01:59	146.23
Chloroform	ND	ND		29	5.6		07/20/13 01:59	146.23
Chloromethane	ND	ND		73	23		07/20/13 01:59	146.23
1,2-Dibromoethane (EDB)	ND	ND		29	6.4		07/20/13 01:59	146.23
1,2-Dichlorobenzene	ND	ND		29	10		07/20/13 01:59	146.23
1,3-Dichlorobenzene	ND	ND		29	9.5		07/20/13 01:59	146.23
1,4-Dichlorobenzene	ND	ND		29	9.4		07/20/13 01:59	146.23
Dichlorodifluoromethane	ND	ND		29	9.9		07/20/13 01:59	146.23
1,1-Dichloroethane	ND	ND		29	3.8		07/20/13 01:59	146.23
1,2-Dichloroethane	ND	ND		29	6.9		07/20/13 01:59	146.23
cis-1,2-Dichloroethene	ND	ND		29	8.8		07/20/13 01:59	146.23
1,1-Dichloroethene	ND	ND		29	5.0		07/20/13 01:59	146.23
1,2-Dichloropropane	ND	ND		29	7.6		07/20/13 01:59	146.23
cis-1,3-Dichloropropene	ND	ND		29	11		07/20/13 01:59	146.23
trans-1,3-Dichloropropene	ND	ND		29	7.0		07/20/13 01:59	146.23
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		29	4.7		07/20/13 01:59	146.23
Ethylbenzene	**1700**	**7500**		29	9.9		07/20/13 01:59	146.23
Hexachlorobutadiene	ND	ND		150	11		07/20/13 01:59	146.23
Methylcyclohexane	**4200**	**17000**		29	29		07/20/13 01:59	146.23
Methylene chloride	**10**	**36**	**J B**	73	6.6		07/20/13 01:59	146.23
Styrene	**13**	**54**	**J**	29	8.5		07/20/13 01:59	146.23
1,1,2,2-Tetrachloroethane	ND	ND		29	8.9		07/20/13 01:59	146.23
Tetrachloroethene	ND	ND		29	5.8		07/20/13 01:59	146.23
Toluene	**2300**	**8800**		29	7.9		07/20/13 01:59	146.23
1,2,4-Trichlorobenzene	ND	ND		150	14		07/20/13 01:59	146.23
1,1,1-Trichloroethane	ND	ND		29	4.4		07/20/13 01:59	146.23
1,1,2-Trichloroethane	ND	ND		29	7.9		07/20/13 01:59	146.23
Trichloroethene	ND	ND		29	5.3		07/20/13 01:59	146.23
Trichlorofluoromethane	ND	ND		29	3.5		07/20/13 01:59	146.23
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		29	4.5		07/20/13 01:59	146.23
1,2,4-Trimethylbenzene	**3100**	**15000**		29	9.2		07/20/13 01:59	146.23
1,3,5-Trimethylbenzene	**870**	**4300**		29	9.5		07/20/13 01:59	146.23
Vinyl chloride	ND	ND		29	10		07/20/13 01:59	146.23
m-Xylene & p-Xylene	**5700**	**25000**		29	18		07/20/13 01:59	146.23
o-Xylene	**2300**	**10000**		29	8.9		07/20/13 01:59	146.23

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**2600**	**2600**		93	26		07/20/13 01:59	146.23
Benzyl chloride	ND	ND		300	59		07/20/13 01:59	146.23
Bromomethane	ND	ND		110	18		07/20/13 01:59	146.23
Carbon tetrachloride	ND	ND		180	35		07/20/13 01:59	146.23
Chlorobenzene	ND	ND		130	33		07/20/13 01:59	146.23
Chloroethane	ND	ND		77	14		07/20/13 01:59	146.23

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Client Sample ID: AOI-09B-AS-OWS-INF(071713)
Date Collected: 07/17/13 13:30
Date Received: 07/19/13 10:00

Lab Sample ID: H3G190411002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		140	27		07/20/13 01:59	146.23
Chloromethane	ND	ND		150	48		07/20/13 01:59	146.23
1,2-Dibromoethane (EDB)	ND	ND		220	49		07/20/13 01:59	146.23
1,2-Dichlorobenzene	ND	ND		180	62		07/20/13 01:59	146.23
1,3-Dichlorobenzene	ND	ND		180	57		07/20/13 01:59	146.23
1,4-Dichlorobenzene	ND	ND		180	56		07/20/13 01:59	146.23
Dichlorodifluoromethane	ND	ND		140	49		07/20/13 01:59	146.23
1,1-Dichloroethane	ND	ND		120	15		07/20/13 01:59	146.23
1,2-Dichloroethane	ND	ND		120	28		07/20/13 01:59	146.23
cis-1,2-Dichloroethene	ND	ND		120	35		07/20/13 01:59	146.23
1,1-Dichloroethene	ND	ND		120	20		07/20/13 01:59	146.23
1,2-Dichloropropane	ND	ND		140	35		07/20/13 01:59	146.23
cis-1,3-Dichloropropene	ND	ND		130	49		07/20/13 01:59	146.23
trans-1,3-Dichloropropene	ND	ND		130	32		07/20/13 01:59	146.23
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		200	33		07/20/13 01:59	146.23
Ethylbenzene	**7500**	**7500**		130	43		07/20/13 01:59	146.23
Hexachlorobutadiene	ND	ND		1600	120		07/20/13 01:59	146.23
Methylcyclohexane	**17000**	**17000**		120	120		07/20/13 01:59	146.23
Methylene chloride	**36**	**36**	**J B**	250	23		07/20/13 01:59	146.23
Styrene	**54**	**54**	**J**	120	36		07/20/13 01:59	146.23
1,1,2,2-Tetrachloroethane	ND	ND		200	61		07/20/13 01:59	146.23
Tetrachloroethene	ND	ND		200	40		07/20/13 01:59	146.23
Toluene	**8800**	**8800**		110	30		07/20/13 01:59	146.23
1,2,4-Trichlorobenzene	ND	ND		1100	110		07/20/13 01:59	146.23
1,1,1-Trichloroethane	ND	ND		160	24		07/20/13 01:59	146.23
1,1,2-Trichloroethane	ND	ND		160	43		07/20/13 01:59	146.23
Trichloroethene	ND	ND		160	28		07/20/13 01:59	146.23
Trichlorofluoromethane	ND	ND		160	20		07/20/13 01:59	146.23
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		220	35		07/20/13 01:59	146.23
1,2,4-Trimethylbenzene	**15000**	**15000**		140	45		07/20/13 01:59	146.23
1,3,5-Trimethylbenzene	**4300**	**4300**		140	47		07/20/13 01:59	146.23
Vinyl chloride	ND	ND		75	27		07/20/13 01:59	146.23
m-Xylene & p-Xylene	**25000**	**25000**		130	76		07/20/13 01:59	146.23
o-Xylene	**10000**	**10000**		130	39		07/20/13 01:59	146.23

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*60 - 140*		*07/20/13 01:59*	*146.23*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
H3G190411001	AOI-09B-SVE-INF(071713)	98							
H3G190411001 - RE	AOI-09B-SVE-INF(071713)	89							
H3G190411002	AOI-09B-AS-OWS-INF(071713)	94							
H3G220000036B	Method Blank	91							
H3G220000036C	Lab Control Sample	94							

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3G220000036B
Matrix: Air
Analysis Batch: 3203036

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		07/19/13 16:47	1
Benzyl chloride	ND	ND		0.40	0.078		07/19/13 16:47	1
Bromomethane	ND	ND		0.20	0.032		07/19/13 16:47	1
Carbon tetrachloride	ND	ND		0.20	0.038		07/19/13 16:47	1
Chlorobenzene	ND	ND		0.20	0.049		07/19/13 16:47	1
Chloroethane	ND	ND		0.20	0.035		07/19/13 16:47	1
Chloroform	ND	ND		0.20	0.038		07/19/13 16:47	1
Chloromethane	ND	ND		0.50	0.16		07/19/13 16:47	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		07/19/13 16:47	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		07/19/13 16:47	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		07/19/13 16:47	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		07/19/13 16:47	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		07/19/13 16:47	1
1,1-Dichloroethane	ND	ND		0.20	0.026		07/19/13 16:47	1
1,2-Dichloroethane	ND	ND		0.20	0.047		07/19/13 16:47	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		07/19/13 16:47	1
1,1-Dichloroethene	ND	ND		0.20	0.034		07/19/13 16:47	1
1,2-Dichloropropane	ND	ND		0.20	0.052		07/19/13 16:47	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		07/19/13 16:47	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		07/19/13 16:47	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		07/19/13 16:47	1
Ethylbenzene	ND	ND		0.20	0.068		07/19/13 16:47	1
Hexachlorobutadiene	ND	ND		1.0	0.078		07/19/13 16:47	1
Methylcyclohexane	ND	ND		0.20	0.20		07/19/13 16:47	1
Methylene chloride	0.062	0.22	J	0.50	0.045		07/19/13 16:47	1
Styrene	ND	ND		0.20	0.058		07/19/13 16:47	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		07/19/13 16:47	1
Tetrachloroethene	ND	ND		0.20	0.040		07/19/13 16:47	1
Toluene	ND	ND		0.20	0.054		07/19/13 16:47	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		07/19/13 16:47	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		07/19/13 16:47	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		07/19/13 16:47	1
Trichloroethene	ND	ND		0.20	0.036		07/19/13 16:47	1
Trichlorofluoromethane	ND	ND		0.20	0.024		07/19/13 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		07/19/13 16:47	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		07/19/13 16:47	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		07/19/13 16:47	1
Vinyl chloride	ND	ND		0.20	0.071		07/19/13 16:47	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		07/19/13 16:47	1
o-Xylene	ND	ND		0.20	0.061		07/19/13 16:47	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		07/19/13 16:47	1
Benzyl chloride	ND	ND		2.1	0.40		07/19/13 16:47	1
Bromomethane	ND	ND		0.78	0.12		07/19/13 16:47	1
Carbon tetrachloride	ND	ND		1.3	0.24		07/19/13 16:47	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3G220000036B
Matrix: Air
Analysis Batch: 3203036

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	ND		0.92	0.23		07/19/13 16:47	1
Chloroethane	ND	ND		0.53	0.092		07/19/13 16:47	1
Chloroform	ND	ND		0.98	0.19		07/19/13 16:47	1
Chloromethane	ND	ND		1.0	0.33		07/19/13 16:47	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		07/19/13 16:47	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		07/19/13 16:47	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		07/19/13 16:47	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		07/19/13 16:47	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		07/19/13 16:47	1
1,1-Dichloroethane	ND	ND		0.81	0.11		07/19/13 16:47	1
1,2-Dichloroethane	ND	ND		0.81	0.19		07/19/13 16:47	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		07/19/13 16:47	1
1,1-Dichloroethene	ND	ND		0.79	0.13		07/19/13 16:47	1
1,2-Dichloropropane	ND	ND		0.92	0.24		07/19/13 16:47	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		07/19/13 16:47	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		07/19/13 16:47	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		07/19/13 16:47	1
Ethylbenzene	ND	ND		0.87	0.30		07/19/13 16:47	1
Hexachlorobutadiene	ND	ND		11	0.83		07/19/13 16:47	1
Methylcyclohexane	ND	ND		0.80	0.80		07/19/13 16:47	1
Methylene chloride	0.22	0.22	J	1.7	0.16		07/19/13 16:47	1
Styrene	ND	ND		0.85	0.25		07/19/13 16:47	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		07/19/13 16:47	1
Tetrachloroethene	ND	ND		1.4	0.27		07/19/13 16:47	1
Toluene	ND	ND		0.75	0.20		07/19/13 16:47	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		07/19/13 16:47	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		07/19/13 16:47	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		07/19/13 16:47	1
Trichloroethene	ND	ND		1.1	0.19		07/19/13 16:47	1
Trichlorofluoromethane	ND	ND		1.1	0.13		07/19/13 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		07/19/13 16:47	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		07/19/13 16:47	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		07/19/13 16:47	1
Vinyl chloride	ND	ND		0.51	0.18		07/19/13 16:47	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		07/19/13 16:47	1
o-Xylene	ND	ND		0.87	0.26		07/19/13 16:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*60 - 140*		*07/19/13 16:47*	*1*

Lab Sample ID: H3G220000036C
Matrix: Air
Analysis Batch: 3203036

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.18		ppb(v/v)		84	70 - 130
Benzyl chloride	5.00	4.28		ppb(v/v)		86	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3G220000036C
Matrix: Air
Analysis Batch: 3203036

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	5.00	5.00		ppb(v/v)		100	70 - 130
Carbon tetrachloride	5.00	5.05		ppb(v/v)		101	70 - 130
Chlorobenzene	5.00	4.78		ppb(v/v)		96	70 - 130
Chloroethane	5.00	4.27		ppb(v/v)		85	70 - 130
Chloroform	5.00	4.35		ppb(v/v)		87	70 - 130
Chloromethane	5.00	4.26		ppb(v/v)		85	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.82		ppb(v/v)		96	70 - 130
1,2-Dichlorobenzene	5.00	5.06		ppb(v/v)		101	70 - 130
1,3-Dichlorobenzene	5.00	5.15		ppb(v/v)		103	70 - 130
1,4-Dichlorobenzene	5.00	5.18		ppb(v/v)		104	70 - 130
Dichlorodifluoromethane	5.00	6.06		ppb(v/v)		121	60 - 140
1,1-Dichloroethane	5.00	4.12		ppb(v/v)		82	70 - 130
1,2-Dichloroethane	5.00	4.28		ppb(v/v)		86	70 - 130
cis-1,2-Dichloroethene	5.00	5.17		ppb(v/v)		103	70 - 130
1,1-Dichloroethene	5.00	5.71		ppb(v/v)		114	70 - 130
1,2-Dichloropropane	5.00	3.56		ppb(v/v)		71	70 - 130
cis-1,3-Dichloropropene	5.00	4.22		ppb(v/v)		84	70 - 130
trans-1,3-Dichloropropene	5.00	4.68		ppb(v/v)		94	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	6.94		ppb(v/v)		139	60 - 140
Ethylbenzene	5.00	4.90		ppb(v/v)		98	70 - 130
Hexachlorobutadiene	5.00	5.85		ppb(v/v)		117	60 - 140
Methylcyclohexane	5.00	4.37		ppb(v/v)		87	20 - 180
Methylene chloride	5.00	4.88		ppb(v/v)		98	70 - 130
Styrene	5.00	5.16		ppb(v/v)		103	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.34		ppb(v/v)		87	70 - 130
Tetrachloroethene	5.00	4.89		ppb(v/v)		98	70 - 130
Toluene	5.00	4.39		ppb(v/v)		88	70 - 130
1,2,4-Trichlorobenzene	5.00	5.87		ppb(v/v)		117	60 - 140
1,1,1-Trichloroethane	5.00	4.67		ppb(v/v)		93	70 - 130
1,1,2-Trichloroethane	5.00	4.09		ppb(v/v)		82	70 - 130
Trichloroethene	5.00	4.89		ppb(v/v)		98	70 - 130
Trichlorofluoromethane	5.00	4.78		ppb(v/v)		96	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.70		ppb(v/v)		114	70 - 130
1,2,4-Trimethylbenzene	5.00	4.84		ppb(v/v)		97	70 - 130
1,3,5-Trimethylbenzene	5.00	5.22		ppb(v/v)		104	70 - 130
Vinyl chloride	5.00	4.49		ppb(v/v)		90	70 - 130
m-Xylene & p-Xylene	10.0	9.46		ppb(v/v)		95	70 - 130
o-Xylene	5.00	4.64		ppb(v/v)		93	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	13.4		ug/m3		84	70 - 130
Benzyl chloride	25.9	22.2		ug/m3		86	70 - 130
Bromomethane	19.4	19.4		ug/m3		100	70 - 130
Carbon tetrachloride	31.5	31.8		ug/m3		101	70 - 130
Chlorobenzene	23.0	21.9		ug/m3		96	70 - 130
Chloroethane	13.2	11.3		ug/m3		85	70 - 130
Chloroform	24.4	21.2		ug/m3		87	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3G220000036C
Matrix: Air
Analysis Batch: 3203036

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.3	8.79		ug/m3		85	60 - 140
1,2-Dibromoethane (EDB)	38.4	37.0		ug/m3		96	70 - 130
1,2-Dichlorobenzene	30.1	30.4		ug/m3		101	70 - 130
1,3-Dichlorobenzene	30.1	31.0		ug/m3		103	70 - 130
1,4-Dichlorobenzene	30.1	31.1		ug/m3		104	70 - 130
Dichlorodifluoromethane	24.7	30.0		ug/m3		121	60 - 140
1,1-Dichloroethane	20.2	16.7		ug/m3		82	70 - 130
1,2-Dichloroethane	20.2	17.3		ug/m3		86	70 - 130
cis-1,2-Dichloroethene	19.8	20.5		ug/m3		103	70 - 130
1,1-Dichloroethene	19.8	22.6		ug/m3		114	70 - 130
1,2-Dichloropropane	23.1	16.4		ug/m3		71	70 - 130
cis-1,3-Dichloropropene	22.7	19.2		ug/m3		84	70 - 130
trans-1,3-Dichloropropene	22.7	21.3		ug/m3		94	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	48.5		ug/m3		139	60 - 140
Ethylbenzene	21.7	21.3		ug/m3		98	70 - 130
Hexachlorobutadiene	53.3	62.4		ug/m3		117	60 - 140
Methylcyclohexane	20.1	17.6		ug/m3		87	20 - 180
Methylene chloride	17.4	17.0		ug/m3		98	70 - 130
Styrene	21.3	22.0		ug/m3		103	70 - 130
1,1,2,2-Tetrachloroethane	34.3	29.8		ug/m3		87	70 - 130
Tetrachloroethene	33.9	33.2		ug/m3		98	70 - 130
Toluene	18.8	16.5		ug/m3		88	70 - 130
1,2,4-Trichlorobenzene	37.1	43.5		ug/m3		117	60 - 140
1,1,1-Trichloroethane	27.3	25.5		ug/m3		93	70 - 130
1,1,2-Trichloroethane	27.3	22.3		ug/m3		82	70 - 130
Trichloroethene	26.9	26.3		ug/m3		98	70 - 130
Trichlorofluoromethane	28.1	26.9		ug/m3		96	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	43.7		ug/m3		114	70 - 130
1,2,4-Trimethylbenzene	24.6	23.8		ug/m3		97	70 - 130
1,3,5-Trimethylbenzene	24.6	25.7		ug/m3		104	70 - 130
Vinyl chloride	12.8	11.5		ug/m3		90	70 - 130
m-Xylene & p-Xylene	43.4	41.1		ug/m3		95	70 - 130
o-Xylene	21.7	20.1		ug/m3		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-59351/4
Matrix: Air
Analysis Batch: 59351

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ppb v/v	MB Result ug/m3	MB Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	14	57	U	14	14		07/30/13 14:22	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: MB 200-59351/4
Matrix: Air
Analysis Batch: 59351

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	57	57	U	57	57		07/30/13 14:22	1

Lab Sample ID: LCS 200-59351/2
Matrix: Air
Analysis Batch: 59351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	10.0	14	U	ppb v/v		104	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	41	57	U	ug/m3		104	70 - 130

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

GC/MS VOA

Analysis Batch: 3203036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3G190411001	AOI-09B-SVE-INF(071713)	Total	Air	TO-15	
H3G190411002	AOI-09B-AS-OWS-INF(071713)	Total	Air	TO-15	
H3G220000036B	Method Blank	Total	Air	TO-15	
H3G220000036C	Lab Control Sample	Total	Air	TO-15	

Air - GC/MS VOA

Analysis Batch: 59351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-17674-1	AOI-09B-SVE-INF (071713)	Total/NA	Air	TO3	
200-17674-2	AOI-09B-AS-OWS-INF (071713)	Total/NA	Air	TO3	
LCS 200-59351/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-59351/4	Method Blank	Total/NA	Air	TO3	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-14
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-14
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	04-13-14
Nevada	State Program	9	TN00009	07-31-14
New Jersey	NELAP	2	TN001	06-30-14
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-30-13
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-14
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-13
USDA	Federal		P330-11-00035	01-20-14
Utah	NELAP	8	QUAN3	06-30-13
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-14
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-13

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-14
L-A-B	DoD ELAP		L2336	10-26-13
Louisiana	NELAP	6	176292	06-30-14
Maine	State Program	1	VT00008	04-17-15
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-14
New York	NELAP	2	10391	04-01-14

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00489	04-30-14
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13
Virginia	NELAP	3	460209	12-14-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.01500

TestAmerica Job ID: H3G190411

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-17674-1	AOI-09B-SVE-INF (071713)	Air	07/17/13 13:00	07/26/13 09:30
200-17674-2	AOI-09B-AS-OWS-INF (071713)	Air	07/17/13 13:30	07/26/13 09:30
H3G190411001	AOI-09B-SVE-INF(071713)	Air	07/17/13 13:00	07/19/13 10:00
H3G190411002	AOI-09B-AS-OWS-INF(071713)	Air	07/17/13 13:30	07/19/13 10:00

H3619041 1

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC071713.1

Send Results To:

Contact & Company Name: Tony Maffeo	Telephone: 248.994.2240
Address: 28550 Cabot Dr. Suite 500	Site Contact: Trevor Swarthout
City State Zip: Novi, MI 48377	Email: Tony.Maffeo@arcadis-us.com
Project Name/Location (City, State): RACER Buick City - Flint, MI	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature: Benjamin J. Lawrence

KEYS

Preservative	Container	Matrix
A. None	1. Summa Canister	A = Air

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	# of Containers	Container Information	PARAMETER ANALYSIS & METHOD: TO-3 (Total Vocs) C5-C10	PARAMETER ANALYSIS & METHOD: TO-15 w/Methylcyclohexan as TIC	REMARKS
AOI-09B-SVE-INF (071713)	071713	1300		X	A	E	1	1	X	X	Cannister # 12882
AOI-09B-AS-OWS- INF (071713)	071713	1330		X	A	E	1	1	X	X	Cannister # 1316N

R.# 7/19/13
~~1 BOX NO CUSTODY SEAL~~
1 BOX WITH CUSTODY SEAL
RECEIVED @ AMBIENT TEMP
R.# 7/19/13
1 BOX FED EX 904406713145

Special Instructions/Comments:

Special QA/QC Instructions (✓): 2 CANS, NO FLOWS

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Test America - Knoxville, TN	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Terri Harlin	Printed Name: TERRI HARLIN
		Signature: Benjamin J. Lawrence	Signature: Terri Harlin	Signature: Terri Harlin
Specify Turnaround Requirements: 2 Week TAT	Sample Receipt:	Firm: ARCADIS	Firm: TAL	Firm: TAL
Fed-Ex Tracking #:	Condition/Cooler Temp:	Date/Time: 7/18/13 1300	Date/Time: 7/19/13 1300	Date/Time: 7/19/13 1301

RECEIVED by: Rita Hancock 7/19/13 10:00

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 1736190411

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓			☐ **19a** Other	

Quote #: 91261 PM Instructions: _____

Sample Receiving Associate: Rita Hancock Date: 7/19/13

QA026R24.doc, 060413

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3G190411*

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Can or Tedlar bag prep Time	Baro ID B2 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID B2 Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
3/19/13	1540	28.78	M1EQF	12882 ✓	-15.2	+33.9	3/19/13	x2	28.81	0	+34.8	+35.8						10667
"	"	"	M1EQG	1316N ✓	-17.0	+32.7												"

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3H160434
Client Project/Site: B0064410.2013.0
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
10559 Citation Drive
Suite 100
Brighton, MI 48116

Attn: Andrea Krevinghaus

Authorized for release by:
9/11/2013 11:51:14 AM

Terry Walker Wasmund, Project Manager
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 7
Client Sample Results 9
Surrogate Summary 15
QC Sample Results 16
QC Association Summary 25
Lab Chronicle 26
Certification Summary 27
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 32

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated result. Result is less than RL.

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3H160434

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Subcontract

The following analyses were performed by the TestAmerica Burlington Laboratory (NELAP Accrediting Authority: NJDEP; Lab ID VT972), 30 Community Drive, Suite 11, South Burlington, VT 05403, (802) 660-1990, William Cicero, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Quantitation methylcyclohexane was based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analyte is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

PROJECT NARRATIVE
H3H160434

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3H160434

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: Racer Buick City

Report Number: 200-18256-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 09/04/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 21.0 C.

TOTAL VOLATILE ORGANIC CARBON

Samples AOI-09B-SVE-INF(081413) and AOI-09B-AS-OWS-INF(081413) were analyzed for total volatile organic carbon in accordance with EPA Method TO-3. The samples were analyzed on 09/05/2013.

Samples AOI-09B-SVE-INF(081413)[99X] and AOI-09B-AS-OWS-INF(081413)[14X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the TVOC analysis.

All quality control parameters were within the acceptance limits.

200-18256-1

Comments

No additional comments.

Receipt

The samples were received on 9/4/2013 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 21.0º C.

Air Toxics

Method(s) TO3: Internal standard responses were outside of acceptance limits for the following sample: AOI-09B-SVE-INF(081413) (200-18256-1). The sample shows evidence of matrix interference.

No other analytical or quality issues were noted.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-SVE-INF(081413) — Lab Sample ID: 200-18256-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	72000		1400		ppb v/v	99		TO3	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	300000		5700		ug/m3	99		TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF(081413) — Lab Sample ID: 200-18256-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	5900		200		ppb v/v	14		TO3	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
TPH GRO as Octane (C5-C10)	24000		800		ug/m3	14		TO3	Total/NA

Client Sample ID: AOI-09B-SVE-INF (081413) — Lab Sample ID: H3H160434001

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2800		330	92	ppb(v/v)	1642.26		TO-15	Total
Ethylbenzene	3100		330	110	ppb(v/v)	1642.26		TO-15	Total
Methylcyclohexane	38000		330	330	ppb(v/v)	1642.26		TO-15	Total
Methylene chloride	380	J	820	74	ppb(v/v)	1642.26		TO-15	Total
Toluene	5700		330	89	ppb(v/v)	1642.26		TO-15	Total
1,2,4-Trimethylbenzene	2700		330	100	ppb(v/v)	1642.26		TO-15	Total
1,3,5-Trimethylbenzene	890		330	110	ppb(v/v)	1642.26		TO-15	Total
m-Xylene & p-Xylene	8100		330	200	ppb(v/v)	1642.26		TO-15	Total
o-Xylene	2400		330	100	ppb(v/v)	1642.26		TO-15	Total

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8900		1000	290	ug/m3	1642.26		TO-15	Total
Ethylbenzene	14000		1400	480	ug/m3	1642.26		TO-15	Total
Methylcyclohexane	150000		1300	1300	ug/m3	1642.26		TO-15	Total
Methylene chloride	1300	J	2900	260	ug/m3	1642.26		TO-15	Total
Toluene	21000		1200	330	ug/m3	1642.26		TO-15	Total
1,2,4-Trimethylbenzene	13000		1600	510	ug/m3	1642.26		TO-15	Total
1,3,5-Trimethylbenzene	4400		1600	520	ug/m3	1642.26		TO-15	Total
m-Xylene & p-Xylene	35000		1400	860	ug/m3	1642.26		TO-15	Total
o-Xylene	10000		1400	440	ug/m3	1642.26		TO-15	Total

Client Sample ID: AOI-09B-AS-OWS-INF (081413) — Lab Sample ID: H3H160434002

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	170		3.8	1.1	ppb(v/v)	18.76		TO-15	Total
Ethylbenzene	100		3.8	1.3	ppb(v/v)	18.76		TO-15	Total
Methylcyclohexane	160		3.8	3.8	ppb(v/v)	18.76		TO-15	Total
Methylene chloride	1.4	J	9.4	0.84	ppb(v/v)	18.76		TO-15	Total
Toluene	200		3.8	1.0	ppb(v/v)	18.76		TO-15	Total
1,2,4-Trimethylbenzene	260		3.8	1.2	ppb(v/v)	18.76		TO-15	Total
1,3,5-Trimethylbenzene	67		3.8	1.2	ppb(v/v)	18.76		TO-15	Total
m-Xylene & p-Xylene	400		3.8	2.3	ppb(v/v)	18.76		TO-15	Total
o-Xylene	140		3.8	1.1	ppb(v/v)	18.76		TO-15	Total

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	550		12	3.4	ug/m3	18.76		TO-15	Total
Ethylbenzene	450		16	5.5	ug/m3	18.76		TO-15	Total

This Detection Summary does not include radiochemical test results.

Client Sample ID: AOI-09B-AS-OWS-INF (081413) (Continued)

Lab Sample ID: H3H160434002

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylcyclohexane	650		15	15	ug/m3	18.76		TO-15	Total
Methylene chloride	4.9	J	33	2.9	ug/m3	18.76		TO-15	Total
Toluene	760		14	3.8	ug/m3	18.76		TO-15	Total
1,2,4-Trimethylbenzene	1300		18	5.8	ug/m3	18.76		TO-15	Total
1,3,5-Trimethylbenzene	330		18	6.0	ug/m3	18.76		TO-15	Total
m-Xylene & p-Xylene	1800		16	9.8	ug/m3	18.76		TO-15	Total
o-Xylene	620		16	5.0	ug/m3	18.76		TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-SVE-INF(081413)
Date Collected: 08/14/13 12:00
Date Received: 09/04/13 10:15
Sample Container: Summa Canister 6L

Lab Sample ID: 200-18256-1
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	72000		1400		ppb v/v			09/05/13 09:27	99

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	300000		5700		ug/m3			09/05/13 09:27	99

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-AS-OWS-INF(081413)
Date Collected: 08/14/13 12:20
Date Received: 09/04/13 10:15
Sample Container: Summa Canister 6L

Lab Sample ID: 200-18256-2
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	5900		200		ppb v/v			09/05/13 08:15	14

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	24000		800		ug/m3			09/05/13 08:15	14

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-SVE-INF (081413)
Date Collected: 08/14/13 12:00
Date Received: 08/16/13 10:35

Lab Sample ID: H3H160434001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2800**		330	92	ppb(v/v)			08/20/13 08:42	1642.26
Benzyl chloride	ND		660	130	ppb(v/v)			08/20/13 08:42	1642.26
Bromomethane	ND		330	53	ppb(v/v)			08/20/13 08:42	1642.26
Carbon tetrachloride	ND		330	62	ppb(v/v)			08/20/13 08:42	1642.26
Chlorobenzene	ND		330	80	ppb(v/v)			08/20/13 08:42	1642.26
Chloroethane	ND		330	57	ppb(v/v)			08/20/13 08:42	1642.26
Chloroform	ND		330	62	ppb(v/v)			08/20/13 08:42	1642.26
Chloromethane	ND		820	260	ppb(v/v)			08/20/13 08:42	1642.26
1,2-Dibromoethane (EDB)	ND		330	72	ppb(v/v)			08/20/13 08:42	1642.26
1,2-Dichlorobenzene	ND		330	110	ppb(v/v)			08/20/13 08:42	1642.26
1,3-Dichlorobenzene	ND		330	110	ppb(v/v)			08/20/13 08:42	1642.26
1,4-Dichlorobenzene	ND		330	110	ppb(v/v)			08/20/13 08:42	1642.26
Dichlorodifluoromethane	ND		330	110	ppb(v/v)			08/20/13 08:42	1642.26
1,1-Dichloroethane	ND		330	43	ppb(v/v)			08/20/13 08:42	1642.26
1,2-Dichloroethane	ND		330	77	ppb(v/v)			08/20/13 08:42	1642.26
cis-1,2-Dichloroethene	ND		330	99	ppb(v/v)			08/20/13 08:42	1642.26
1,1-Dichloroethene	ND		330	56	ppb(v/v)			08/20/13 08:42	1642.26
1,2-Dichloropropane	ND		330	85	ppb(v/v)			08/20/13 08:42	1642.26
cis-1,3-Dichloropropene	ND		330	120	ppb(v/v)			08/20/13 08:42	1642.26
trans-1,3-Dichloropropene	ND		330	79	ppb(v/v)			08/20/13 08:42	1642.26
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		330	53	ppb(v/v)			08/20/13 08:42	1642.26
Ethylbenzene	**3100**		330	110	ppb(v/v)			08/20/13 08:42	1642.26
Hexachlorobutadiene	ND		1600	130	ppb(v/v)			08/20/13 08:42	1642.26
Methylcyclohexane	**38000**		330	330	ppb(v/v)			08/20/13 08:42	1642.26
Methylene chloride	**380**	**J**	820	74	ppb(v/v)			08/20/13 08:42	1642.26
Styrene	ND		330	95	ppb(v/v)			08/20/13 08:42	1642.26
1,1,2,2-Tetrachloroethane	ND		330	100	ppb(v/v)			08/20/13 08:42	1642.26
Tetrachloroethene	ND		330	66	ppb(v/v)			08/20/13 08:42	1642.26
Toluene	**5700**		330	89	ppb(v/v)			08/20/13 08:42	1642.26
1,2,4-Trichlorobenzene	ND		1600	160	ppb(v/v)			08/20/13 08:42	1642.26
1,1,1-Trichloroethane	ND		330	49	ppb(v/v)			08/20/13 08:42	1642.26
1,1,2-Trichloroethane	ND		330	89	ppb(v/v)			08/20/13 08:42	1642.26
Trichloroethene	ND		330	59	ppb(v/v)			08/20/13 08:42	1642.26
Trichlorofluoromethane	ND		330	39	ppb(v/v)			08/20/13 08:42	1642.26
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		330	51	ppb(v/v)			08/20/13 08:42	1642.26
1,2,4-Trimethylbenzene	**2700**		330	100	ppb(v/v)			08/20/13 08:42	1642.26
1,3,5-Trimethylbenzene	**890**		330	110	ppb(v/v)			08/20/13 08:42	1642.26
Vinyl chloride	ND		330	120	ppb(v/v)			08/20/13 08:42	1642.26
m-Xylene & p-Xylene	**8100**		330	200	ppb(v/v)			08/20/13 08:42	1642.26
o-Xylene	**2400**		330	100	ppb(v/v)			08/20/13 08:42	1642.26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**8900**		1000	290	ug/m3			08/20/13 08:42	1642.26
Benzyl chloride	ND		3400	660	ug/m3			08/20/13 08:42	1642.26
Bromomethane	ND		1300	200	ug/m3			08/20/13 08:42	1642.26
Carbon tetrachloride	ND		2100	390	ug/m3			08/20/13 08:42	1642.26
Chlorobenzene	ND		1500	370	ug/m3			08/20/13 08:42	1642.26
Chloroethane	ND		870	150	ug/m3			08/20/13 08:42	1642.26
Chloroform	ND		1600	300	ug/m3			08/20/13 08:42	1642.26
Chloromethane	ND		1700	540	ug/m3			08/20/13 08:42	1642.26

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-SVE-INF (081413)
Date Collected: 08/14/13 12:00
Date Received: 08/16/13 10:35

Lab Sample ID: H3H160434001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		2500	560	ug/m3			08/20/13 08:42	1642.26
1,2-Dichlorobenzene	ND		2000	690	ug/m3			08/20/13 08:42	1642.26
1,3-Dichlorobenzene	ND		2000	640	ug/m3			08/20/13 08:42	1642.26
1,4-Dichlorobenzene	ND		2000	630	ug/m3			08/20/13 08:42	1642.26
Dichlorodifluoromethane	ND		1600	550	ug/m3			08/20/13 08:42	1642.26
1,1-Dichloroethane	ND		1300	170	ug/m3			08/20/13 08:42	1642.26
1,2-Dichloroethane	ND		1300	310	ug/m3			08/20/13 08:42	1642.26
cis-1,2-Dichloroethene	ND		1300	390	ug/m3			08/20/13 08:42	1642.26
1,1-Dichloroethene	ND		1300	220	ug/m3			08/20/13 08:42	1642.26
1,2-Dichloropropane	ND		1500	390	ug/m3			08/20/13 08:42	1642.26
cis-1,3-Dichloropropene	ND		1500	550	ug/m3			08/20/13 08:42	1642.26
trans-1,3-Dichloropropene	ND		1500	360	ug/m3			08/20/13 08:42	1642.26
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2300	370	ug/m3			08/20/13 08:42	1642.26
Ethylbenzene	**14000**		1400	480	ug/m3			08/20/13 08:42	1642.26
Hexachlorobutadiene	ND		18000	1400	ug/m3			08/20/13 08:42	1642.26
Methylcyclohexane	**150000**		1300	1300	ug/m3			08/20/13 08:42	1642.26
Methylene chloride	**1300**	**J**	2900	260	ug/m3			08/20/13 08:42	1642.26
Styrene	ND		1400	410	ug/m3			08/20/13 08:42	1642.26
1,1,2,2-Tetrachloroethane	ND		2300	690	ug/m3			08/20/13 08:42	1642.26
Tetrachloroethene	ND		2200	450	ug/m3			08/20/13 08:42	1642.26
Toluene	**21000**		1200	330	ug/m3			08/20/13 08:42	1642.26
1,2,4-Trichlorobenzene	ND		12000	1200	ug/m3			08/20/13 08:42	1642.26
1,1,1-Trichloroethane	ND		1800	270	ug/m3			08/20/13 08:42	1642.26
1,1,2-Trichloroethane	ND		1800	480	ug/m3			08/20/13 08:42	1642.26
Trichloroethene	ND		1800	320	ug/m3			08/20/13 08:42	1642.26
Trichlorofluoromethane	ND		1800	220	ug/m3			08/20/13 08:42	1642.26
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2500	390	ug/m3			08/20/13 08:42	1642.26
1,2,4-Trimethylbenzene	**13000**		1600	510	ug/m3			08/20/13 08:42	1642.26
1,3,5-Trimethylbenzene	**4400**		1600	520	ug/m3			08/20/13 08:42	1642.26
Vinyl chloride	ND		840	300	ug/m3			08/20/13 08:42	1642.26
m-Xylene & p-Xylene	**35000**		1400	860	ug/m3			08/20/13 08:42	1642.26
o-Xylene	**10000**		1400	440	ug/m3			08/20/13 08:42	1642.26

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*60 - 140*		*08/20/13 08:42*	*1642.26*

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-AS-OWS-INF (081413)
Date Collected: 08/14/13 12:20
Date Received: 08/16/13 10:35

Lab Sample ID: H3H160434002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**170**		3.8	1.1	ppb(v/v)			08/20/13 13:31	18.76
Benzyl chloride	ND		7.5	1.5	ppb(v/v)			08/20/13 13:31	18.76
Bromomethane	ND		3.8	0.60	ppb(v/v)			08/20/13 13:31	18.76
Carbon tetrachloride	ND		3.8	0.71	ppb(v/v)			08/20/13 13:31	18.76
Chlorobenzene	ND		3.8	0.92	ppb(v/v)			08/20/13 13:31	18.76
Chloroethane	ND		3.8	0.66	ppb(v/v)			08/20/13 13:31	18.76
Chloroform	ND		3.8	0.71	ppb(v/v)			08/20/13 13:31	18.76
Chloromethane	ND		9.4	3.0	ppb(v/v)			08/20/13 13:31	18.76
1,2-Dibromoethane (EDB)	ND		3.8	0.83	ppb(v/v)			08/20/13 13:31	18.76
1,2-Dichlorobenzene	ND		3.8	1.3	ppb(v/v)			08/20/13 13:31	18.76
1,3-Dichlorobenzene	ND		3.8	1.2	ppb(v/v)			08/20/13 13:31	18.76
1,4-Dichlorobenzene	ND		3.8	1.2	ppb(v/v)			08/20/13 13:31	18.76
Dichlorodifluoromethane	ND		3.8	1.3	ppb(v/v)			08/20/13 13:31	18.76
1,1-Dichloroethane	ND		3.8	0.49	ppb(v/v)			08/20/13 13:31	18.76
1,2-Dichloroethane	ND		3.8	0.88	ppb(v/v)			08/20/13 13:31	18.76
cis-1,2-Dichloroethene	ND		3.8	1.1	ppb(v/v)			08/20/13 13:31	18.76
1,1-Dichloroethene	ND		3.8	0.64	ppb(v/v)			08/20/13 13:31	18.76
1,2-Dichloropropane	ND		3.8	0.98	ppb(v/v)			08/20/13 13:31	18.76
cis-1,3-Dichloropropene	ND		3.8	1.4	ppb(v/v)			08/20/13 13:31	18.76
trans-1,3-Dichloropropene	ND		3.8	0.90	ppb(v/v)			08/20/13 13:31	18.76
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		3.8	0.60	ppb(v/v)			08/20/13 13:31	18.76
Ethylbenzene	**100**		3.8	1.3	ppb(v/v)			08/20/13 13:31	18.76
Hexachlorobutadiene	ND		19	1.5	ppb(v/v)			08/20/13 13:31	18.76
Methylcyclohexane	**160**		3.8	3.8	ppb(v/v)			08/20/13 13:31	18.76
Methylene chloride	**1.4**	**J**	9.4	0.84	ppb(v/v)			08/20/13 13:31	18.76
Styrene	ND		3.8	1.1	ppb(v/v)			08/20/13 13:31	18.76
1,1,2,2-Tetrachloroethane	ND		3.8	1.1	ppb(v/v)			08/20/13 13:31	18.76
Tetrachloroethene	ND		3.8	0.75	ppb(v/v)			08/20/13 13:31	18.76
Toluene	**200**		3.8	1.0	ppb(v/v)			08/20/13 13:31	18.76
1,2,4-Trichlorobenzene	ND		19	1.8	ppb(v/v)			08/20/13 13:31	18.76
1,1,1-Trichloroethane	ND		3.8	0.56	ppb(v/v)			08/20/13 13:31	18.76
1,1,2-Trichloroethane	ND		3.8	1.0	ppb(v/v)			08/20/13 13:31	18.76
Trichloroethene	ND		3.8	0.68	ppb(v/v)			08/20/13 13:31	18.76
Trichlorofluoromethane	ND		3.8	0.45	ppb(v/v)			08/20/13 13:31	18.76
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.8	0.58	ppb(v/v)			08/20/13 13:31	18.76
1,2,4-Trimethylbenzene	**260**		3.8	1.2	ppb(v/v)			08/20/13 13:31	18.76
1,3,5-Trimethylbenzene	**67**		3.8	1.2	ppb(v/v)			08/20/13 13:31	18.76
Vinyl chloride	ND		3.8	1.3	ppb(v/v)			08/20/13 13:31	18.76
m-Xylene & p-Xylene	**400**		3.8	2.3	ppb(v/v)			08/20/13 13:31	18.76
o-Xylene	**140**		3.8	1.1	ppb(v/v)			08/20/13 13:31	18.76

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**550**		12	3.4	ug/m3			08/20/13 13:31	18.76
Benzyl chloride	ND		39	7.6	ug/m3			08/20/13 13:31	18.76
Bromomethane	ND		15	2.3	ug/m3			08/20/13 13:31	18.76
Carbon tetrachloride	ND		24	4.5	ug/m3			08/20/13 13:31	18.76
Chlorobenzene	ND		17	4.2	ug/m3			08/20/13 13:31	18.76
Chloroethane	ND		9.9	1.7	ug/m3			08/20/13 13:31	18.76
Chloroform	ND		18	3.5	ug/m3			08/20/13 13:31	18.76
Chloromethane	ND		19	6.2	ug/m3			08/20/13 13:31	18.76

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-AS-OWS-INF (081413)
Date Collected: 08/14/13 12:20
Date Received: 08/16/13 10:35

Lab Sample ID: H3H160434002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		29	6.3	ug/m3			08/20/13 13:31	18.76
1,2-Dichlorobenzene	ND		23	7.9	ug/m3			08/20/13 13:31	18.76
1,3-Dichlorobenzene	ND		23	7.3	ug/m3			08/20/13 13:31	18.76
1,4-Dichlorobenzene	ND		23	7.2	ug/m3			08/20/13 13:31	18.76
Dichlorodifluoromethane	ND		19	6.3	ug/m3			08/20/13 13:31	18.76
1,1-Dichloroethane	ND		15	2.0	ug/m3			08/20/13 13:31	18.76
1,2-Dichloroethane	ND		15	3.6	ug/m3			08/20/13 13:31	18.76
cis-1,2-Dichloroethene	ND		15	4.5	ug/m3			08/20/13 13:31	18.76
1,1-Dichloroethene	ND		15	2.5	ug/m3			08/20/13 13:31	18.76
1,2-Dichloropropane	ND		17	4.5	ug/m3			08/20/13 13:31	18.76
cis-1,3-Dichloropropene	ND		17	6.3	ug/m3			08/20/13 13:31	18.76
trans-1,3-Dichloropropene	ND		17	4.1	ug/m3			08/20/13 13:31	18.76
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		26	4.2	ug/m3			08/20/13 13:31	18.76
Ethylbenzene	**450**		16	5.5	ug/m3			08/20/13 13:31	18.76
Hexachlorobutadiene	ND		200	16	ug/m3			08/20/13 13:31	18.76
Methylcyclohexane	**650**		15	15	ug/m3			08/20/13 13:31	18.76
Methylene chloride	**4.9**	**J**	33	2.9	ug/m3			08/20/13 13:31	18.76
Styrene	ND		16	4.6	ug/m3			08/20/13 13:31	18.76
1,1,2,2-Tetrachloroethane	ND		26	7.9	ug/m3			08/20/13 13:31	18.76
Tetrachloroethene	ND		25	5.1	ug/m3			08/20/13 13:31	18.76
Toluene	**760**		14	3.8	ug/m3			08/20/13 13:31	18.76
1,2,4-Trichlorobenzene	ND		140	14	ug/m3			08/20/13 13:31	18.76
1,1,1-Trichloroethane	ND		20	3.1	ug/m3			08/20/13 13:31	18.76
1,1,2-Trichloroethane	ND		20	5.5	ug/m3			08/20/13 13:31	18.76
Trichloroethene	ND		20	3.6	ug/m3			08/20/13 13:31	18.76
Trichlorofluoromethane	ND		21	2.5	ug/m3			08/20/13 13:31	18.76
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		29	4.5	ug/m3			08/20/13 13:31	18.76
1,2,4-Trimethylbenzene	**1300**		18	5.8	ug/m3			08/20/13 13:31	18.76
1,3,5-Trimethylbenzene	**330**		18	6.0	ug/m3			08/20/13 13:31	18.76
Vinyl chloride	ND		9.6	3.4	ug/m3			08/20/13 13:31	18.76
m-Xylene & p-Xylene	**1800**		16	9.8	ug/m3			08/20/13 13:31	18.76
o-Xylene	**620**		16	5.0	ug/m3			08/20/13 13:31	18.76

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*60 - 140*		*08/20/13 13:31*	*18.76*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
H3H160434001	AOI-09B-SVE-INF (081413)	104							
H3H160434002	AOI-09B-AS-OWS-INF (081413)	108							
H3H200000019B	Method Blank	99							
H3H200000019C	Lab Control Sample	100							
H3H210000047B	Method Blank	101							
H3H210000047C	Lab Control Sample	102							

Surrogate Legend

BFB = 4-Bromofluorobenzene

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3H200000019B
Matrix: Air
Analysis Batch: 3232019

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.056	ppb(v/v)			08/19/13 14:40	1
Benzyl chloride	ND		0.40	0.078	ppb(v/v)			08/19/13 14:40	1
Bromomethane	ND		0.20	0.032	ppb(v/v)			08/19/13 14:40	1
Carbon tetrachloride	ND		0.20	0.038	ppb(v/v)			08/19/13 14:40	1
Chlorobenzene	ND		0.20	0.049	ppb(v/v)			08/19/13 14:40	1
Chloroethane	ND		0.20	0.035	ppb(v/v)			08/19/13 14:40	1
Chloroform	ND		0.20	0.038	ppb(v/v)			08/19/13 14:40	1
Chloromethane	ND		0.50	0.16	ppb(v/v)			08/19/13 14:40	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb(v/v)			08/19/13 14:40	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb(v/v)			08/19/13 14:40	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb(v/v)			08/19/13 14:40	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb(v/v)			08/19/13 14:40	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb(v/v)			08/19/13 14:40	1
1,1-Dichloroethane	ND		0.20	0.026	ppb(v/v)			08/19/13 14:40	1
1,2-Dichloroethane	ND		0.20	0.047	ppb(v/v)			08/19/13 14:40	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb(v/v)			08/19/13 14:40	1
1,1-Dichloroethene	ND		0.20	0.034	ppb(v/v)			08/19/13 14:40	1
1,2-Dichloropropane	ND		0.20	0.052	ppb(v/v)			08/19/13 14:40	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb(v/v)			08/19/13 14:40	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb(v/v)			08/19/13 14:40	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb(v/v)			08/19/13 14:40	1
Ethylbenzene	ND		0.20	0.068	ppb(v/v)			08/19/13 14:40	1
Hexachlorobutadiene	ND		1.0	0.078	ppb(v/v)			08/19/13 14:40	1
Methylcyclohexane	ND		0.20	0.20	ppb(v/v)			08/19/13 14:40	1
Methylene chloride	ND		0.50	0.045	ppb(v/v)			08/19/13 14:40	1
Styrene	ND		0.20	0.058	ppb(v/v)			08/19/13 14:40	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb(v/v)			08/19/13 14:40	1
Tetrachloroethene	ND		0.20	0.040	ppb(v/v)			08/19/13 14:40	1
Toluene	ND		0.20	0.054	ppb(v/v)			08/19/13 14:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb(v/v)			08/19/13 14:40	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb(v/v)			08/19/13 14:40	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb(v/v)			08/19/13 14:40	1
Trichloroethene	ND		0.20	0.036	ppb(v/v)			08/19/13 14:40	1
Trichlorofluoromethane	ND		0.20	0.024	ppb(v/v)			08/19/13 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb(v/v)			08/19/13 14:40	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb(v/v)			08/19/13 14:40	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb(v/v)			08/19/13 14:40	1
Vinyl chloride	ND		0.20	0.071	ppb(v/v)			08/19/13 14:40	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb(v/v)			08/19/13 14:40	1
o-Xylene	ND		0.20	0.061	ppb(v/v)			08/19/13 14:40	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64	0.18	ug/m3			08/19/13 14:40	1
Benzyl chloride	ND		2.1	0.40	ug/m3			08/19/13 14:40	1
Bromomethane	ND		0.78	0.12	ug/m3			08/19/13 14:40	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			08/19/13 14:40	1
Chlorobenzene	ND		0.92	0.23	ug/m3			08/19/13 14:40	1
Chloroethane	ND		0.53	0.092	ug/m3			08/19/13 14:40	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H200000019B
Matrix: Air
Analysis Batch: 3232019

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.98	0.19	ug/m3			08/19/13 14:40	1
Chloromethane	ND		1.0	0.33	ug/m3			08/19/13 14:40	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			08/19/13 14:40	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			08/19/13 14:40	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			08/19/13 14:40	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			08/19/13 14:40	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			08/19/13 14:40	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			08/19/13 14:40	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			08/19/13 14:40	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			08/19/13 14:40	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			08/19/13 14:40	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			08/19/13 14:40	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			08/19/13 14:40	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/19/13 14:40	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			08/19/13 14:40	1
Ethylbenzene	ND		0.87	0.30	ug/m3			08/19/13 14:40	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			08/19/13 14:40	1
Methylcyclohexane	ND		0.80	0.80	ug/m3			08/19/13 14:40	1
Methylene chloride	0.12		1.7	0.16	ug/m3			08/19/13 14:40	1
Styrene	ND		0.85	0.25	ug/m3			08/19/13 14:40	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			08/19/13 14:40	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			08/19/13 14:40	1
Toluene	ND		0.75	0.20	ug/m3			08/19/13 14:40	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			08/19/13 14:40	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			08/19/13 14:40	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			08/19/13 14:40	1
Trichloroethene	ND		1.1	0.19	ug/m3			08/19/13 14:40	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			08/19/13 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			08/19/13 14:40	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			08/19/13 14:40	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			08/19/13 14:40	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/19/13 14:40	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			08/19/13 14:40	1
o-Xylene	ND		0.87	0.26	ug/m3			08/19/13 14:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*60 - 140*		*08/19/13 14:40*	*1*

Lab Sample ID: H3H200000019C
Matrix: Air
Analysis Batch: 3232019

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.59		ppb(v/v)		92	70 - 130
Benzyl chloride	5.00	5.01		ppb(v/v)		100	70 - 130
Bromomethane	5.00	5.45		ppb(v/v)		109	70 - 130
Carbon tetrachloride	5.00	5.44		ppb(v/v)		109	70 - 130
Chlorobenzene	5.00	4.58		ppb(v/v)		92	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H200000019C
Matrix: Air
Analysis Batch: 3232019

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	5.00	5.32		ppb(v/v)		106	70 - 130
Chloroform	5.00	4.42		ppb(v/v)		88	70 - 130
Chloromethane	5.00	4.94		ppb(v/v)		99	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.63		ppb(v/v)		93	70 - 130
1,2-Dichlorobenzene	5.00	4.53		ppb(v/v)		91	70 - 130
1,3-Dichlorobenzene	5.00	4.57		ppb(v/v)		91	70 - 130
1,4-Dichlorobenzene	5.00	4.54		ppb(v/v)		91	70 - 130
Dichlorodifluoromethane	5.00	5.41		ppb(v/v)		108	60 - 140
1,1-Dichloroethane	5.00	4.57		ppb(v/v)		91	70 - 130
1,2-Dichloroethane	5.00	4.76		ppb(v/v)		95	70 - 130
cis-1,2-Dichloroethene	5.00	4.52		ppb(v/v)		90	70 - 130
1,1-Dichloroethene	5.00	5.06		ppb(v/v)		101	70 - 130
1,2-Dichloropropane	5.00	4.72		ppb(v/v)		94	70 - 130
cis-1,3-Dichloropropene	5.00	4.74		ppb(v/v)		95	70 - 130
trans-1,3-Dichloropropene	5.00	4.92		ppb(v/v)		98	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	6.26		ppb(v/v)		125	60 - 140
Ethylbenzene	5.00	4.61		ppb(v/v)		92	70 - 130
Hexachlorobutadiene	5.00	4.06		ppb(v/v)		81	60 - 140
Methylcyclohexane	5.00	4.71		ppb(v/v)		94	20 - 180
Methylene chloride	5.00	4.76		ppb(v/v)		95	70 - 130
Styrene	5.00	4.73		ppb(v/v)		95	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.91		ppb(v/v)		98	70 - 130
Tetrachloroethene	5.00	4.73		ppb(v/v)		95	70 - 130
Toluene	5.00	4.50		ppb(v/v)		90	70 - 130
1,2,4-Trichlorobenzene	5.00	4.62		ppb(v/v)		92	60 - 140
1,1,1-Trichloroethane	5.00	4.45		ppb(v/v)		89	70 - 130
1,1,2-Trichloroethane	5.00	4.71		ppb(v/v)		94	70 - 130
Trichloroethene	5.00	4.77		ppb(v/v)		95	70 - 130
Trichlorofluoromethane	5.00	5.22		ppb(v/v)		104	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.02		ppb(v/v)		100	70 - 130
1,2,4-Trimethylbenzene	5.00	4.84		ppb(v/v)		97	70 - 130
1,3,5-Trimethylbenzene	5.00	4.80		ppb(v/v)		96	70 - 130
Vinyl chloride	5.00	5.26		ppb(v/v)		105	70 - 130
m-Xylene & p-Xylene	10.0	9.36		ppb(v/v)		94	70 - 130
o-Xylene	5.00	4.58		ppb(v/v)		92	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	14.7		ug/m3		92	70 - 130
Benzyl chloride	25.9	25.9		ug/m3		100	70 - 130
Bromomethane	19.4	21.2		ug/m3		109	70 - 130
Carbon tetrachloride	31.5	34.2		ug/m3		109	70 - 130
Chlorobenzene	23.0	21.1		ug/m3		92	70 - 130
Chloroethane	13.2	14.1		ug/m3		106	70 - 130
Chloroform	24.4	21.6		ug/m3		88	70 - 130
Chloromethane	10.3	10.2		ug/m3		99	60 - 140
1,2-Dibromoethane (EDB)	38.4	35.6		ug/m3		93	70 - 130
1,2-Dichlorobenzene	30.1	27.3		ug/m3		91	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H200000019C
Matrix: Air
Analysis Batch: 3232019

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	30.1	27.5		ug/m3		91	70 - 130
1,4-Dichlorobenzene	30.1	27.3		ug/m3		91	70 - 130
Dichlorodifluoromethane	24.7	26.7		ug/m3		108	60 - 140
1,1-Dichloroethane	20.2	18.5		ug/m3		91	70 - 130
1,2-Dichloroethane	20.2	19.3		ug/m3		95	70 - 130
cis-1,2-Dichloroethene	19.8	17.9		ug/m3		90	70 - 130
1,1-Dichloroethene	19.8	20.1		ug/m3		101	70 - 130
1,2-Dichloropropane	23.1	21.8		ug/m3		94	70 - 130
cis-1,3-Dichloropropene	22.7	21.5		ug/m3		95	70 - 130
trans-1,3-Dichloropropene	22.7	22.3		ug/m3		98	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	43.7		ug/m3		125	60 - 140
Ethylbenzene	21.7	20.0		ug/m3		92	70 - 130
Hexachlorobutadiene	53.3	43.3		ug/m3		81	60 - 140
Methylcyclohexane	20.1	18.9		ug/m3		94	20 - 180
Methylene chloride	17.4	16.5		ug/m3		95	70 - 130
Styrene	21.3	20.1		ug/m3		95	70 - 130
1,1,2,2-Tetrachloroethane	34.3	33.7		ug/m3		98	70 - 130
Tetrachloroethene	33.9	32.1		ug/m3		95	70 - 130
Toluene	18.8	17.0		ug/m3		90	70 - 130
1,2,4-Trichlorobenzene	37.1	34.3		ug/m3		92	60 - 140
1,1,1-Trichloroethane	27.3	24.3		ug/m3		89	70 - 130
1,1,2-Trichloroethane	27.3	25.7		ug/m3		94	70 - 130
Trichloroethene	26.9	25.6		ug/m3		95	70 - 130
Trichlorofluoromethane	28.1	29.3		ug/m3		104	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	38.5		ug/m3		100	70 - 130
1,2,4-Trimethylbenzene	24.6	23.8		ug/m3		97	70 - 130
1,3,5-Trimethylbenzene	24.6	23.6		ug/m3		96	70 - 130
Vinyl chloride	12.8	13.5		ug/m3		105	70 - 130
m-Xylene & p-Xylene	43.4	40.6		ug/m3		94	70 - 130
o-Xylene	21.7	19.9		ug/m3		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*60 - 140*

Lab Sample ID: H3H210000047B
Matrix: Air
Analysis Batch: 3233047

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.056	ppb(v/v)			08/20/13 12:37	1
Benzyl chloride	ND		0.40	0.078	ppb(v/v)			08/20/13 12:37	1
Bromomethane	ND		0.20	0.032	ppb(v/v)			08/20/13 12:37	1
Carbon tetrachloride	ND		0.20	0.038	ppb(v/v)			08/20/13 12:37	1
Chlorobenzene	ND		0.20	0.049	ppb(v/v)			08/20/13 12:37	1
Chloroethane	ND		0.20	0.035	ppb(v/v)			08/20/13 12:37	1
Chloroform	ND		0.20	0.038	ppb(v/v)			08/20/13 12:37	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H210000047B
Matrix: Air
Analysis Batch: 3233047

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		0.50	0.16	ppb(v/v)			08/20/13 12:37	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb(v/v)			08/20/13 12:37	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb(v/v)			08/20/13 12:37	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb(v/v)			08/20/13 12:37	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb(v/v)			08/20/13 12:37	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb(v/v)			08/20/13 12:37	1
1,1-Dichloroethane	ND		0.20	0.026	ppb(v/v)			08/20/13 12:37	1
1,2-Dichloroethane	ND		0.20	0.047	ppb(v/v)			08/20/13 12:37	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb(v/v)			08/20/13 12:37	1
1,1-Dichloroethene	ND		0.20	0.034	ppb(v/v)			08/20/13 12:37	1
1,2-Dichloropropane	ND		0.20	0.052	ppb(v/v)			08/20/13 12:37	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb(v/v)			08/20/13 12:37	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb(v/v)			08/20/13 12:37	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb(v/v)			08/20/13 12:37	1
Ethylbenzene	ND		0.20	0.068	ppb(v/v)			08/20/13 12:37	1
Hexachlorobutadiene	ND		1.0	0.078	ppb(v/v)			08/20/13 12:37	1
Methylcyclohexane	ND		0.20	0.20	ppb(v/v)			08/20/13 12:37	1
Methylene chloride	ND		0.50	0.045	ppb(v/v)			08/20/13 12:37	1
Styrene	ND		0.20	0.058	ppb(v/v)			08/20/13 12:37	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb(v/v)			08/20/13 12:37	1
Tetrachloroethene	ND		0.20	0.040	ppb(v/v)			08/20/13 12:37	1
Toluene	ND		0.20	0.054	ppb(v/v)			08/20/13 12:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb(v/v)			08/20/13 12:37	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb(v/v)			08/20/13 12:37	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb(v/v)			08/20/13 12:37	1
Trichloroethene	ND		0.20	0.036	ppb(v/v)			08/20/13 12:37	1
Trichlorofluoromethane	ND		0.20	0.024	ppb(v/v)			08/20/13 12:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb(v/v)			08/20/13 12:37	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb(v/v)			08/20/13 12:37	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb(v/v)			08/20/13 12:37	1
Vinyl chloride	ND		0.20	0.071	ppb(v/v)			08/20/13 12:37	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb(v/v)			08/20/13 12:37	1
o-Xylene	ND		0.20	0.061	ppb(v/v)			08/20/13 12:37	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64	0.18	ug/m3			08/20/13 12:37	1
Benzyl chloride	ND		2.1	0.40	ug/m3			08/20/13 12:37	1
Bromomethane	ND		0.78	0.12	ug/m3			08/20/13 12:37	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			08/20/13 12:37	1
Chlorobenzene	ND		0.92	0.23	ug/m3			08/20/13 12:37	1
Chloroethane	ND		0.53	0.092	ug/m3			08/20/13 12:37	1
Chloroform	ND		0.98	0.19	ug/m3			08/20/13 12:37	1
Chloromethane	ND		1.0	0.33	ug/m3			08/20/13 12:37	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			08/20/13 12:37	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			08/20/13 12:37	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			08/20/13 12:37	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			08/20/13 12:37	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			08/20/13 12:37	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H210000047B
Matrix: Air
Analysis Batch: 3233047

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			08/20/13 12:37	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			08/20/13 12:37	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			08/20/13 12:37	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			08/20/13 12:37	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			08/20/13 12:37	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			08/20/13 12:37	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/20/13 12:37	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			08/20/13 12:37	1
Ethylbenzene	ND		0.87	0.30	ug/m3			08/20/13 12:37	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			08/20/13 12:37	1
Methylcyclohexane	ND		0.80	0.80	ug/m3			08/20/13 12:37	1
Methylene chloride	0.085		1.7	0.16	ug/m3			08/20/13 12:37	1
Styrene	ND		0.85	0.25	ug/m3			08/20/13 12:37	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			08/20/13 12:37	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			08/20/13 12:37	1
Toluene	ND		0.75	0.20	ug/m3			08/20/13 12:37	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			08/20/13 12:37	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			08/20/13 12:37	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			08/20/13 12:37	1
Trichloroethene	ND		1.1	0.19	ug/m3			08/20/13 12:37	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			08/20/13 12:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			08/20/13 12:37	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			08/20/13 12:37	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			08/20/13 12:37	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/20/13 12:37	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			08/20/13 12:37	1
o-Xylene	ND		0.87	0.26	ug/m3			08/20/13 12:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*60 - 140*		*08/20/13 12:37*	*1*

Lab Sample ID: H3H210000047C
Matrix: Air
Analysis Batch: 3233047

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.50		ppb(v/v)		90	70 - 130
Benzyl chloride	5.00	4.81		ppb(v/v)		96	70 - 130
Bromomethane	5.00	5.59		ppb(v/v)		112	70 - 130
Carbon tetrachloride	5.00	5.42		ppb(v/v)		108	70 - 130
Chlorobenzene	5.00	4.43		ppb(v/v)		89	70 - 130
Chloroethane	5.00	5.55		ppb(v/v)		111	70 - 130
Chloroform	5.00	4.64		ppb(v/v)		93	70 - 130
Chloromethane	5.00	5.10		ppb(v/v)		102	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.51		ppb(v/v)		90	70 - 130
1,2-Dichlorobenzene	5.00	4.40		ppb(v/v)		88	70 - 130
1,3-Dichlorobenzene	5.00	4.44		ppb(v/v)		89	70 - 130
1,4-Dichlorobenzene	5.00	4.43		ppb(v/v)		89	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H210000047C
Matrix: Air
Analysis Batch: 3233047

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	5.00	5.30		ppb(v/v)		106	60 - 140
1,1-Dichloroethane	5.00	4.86		ppb(v/v)		97	70 - 130
1,2-Dichloroethane	5.00	4.63		ppb(v/v)		93	70 - 130
cis-1,2-Dichloroethene	5.00	4.94		ppb(v/v)		99	70 - 130
1,1-Dichloroethene	5.00	5.25		ppb(v/v)		105	70 - 130
1,2-Dichloropropane	5.00	4.66		ppb(v/v)		93	70 - 130
cis-1,3-Dichloropropene	5.00	4.68		ppb(v/v)		94	70 - 130
trans-1,3-Dichloropropene	5.00	4.66		ppb(v/v)		93	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.64		ppb(v/v)		113	60 - 140
Ethylbenzene	5.00	4.34		ppb(v/v)		87	70 - 130
Hexachlorobutadiene	5.00	3.91		ppb(v/v)		78	60 - 140
Methylcyclohexane	5.00	4.64		ppb(v/v)		93	20 - 180
Methylene chloride	5.00	5.12		ppb(v/v)		102	70 - 130
Styrene	5.00	4.49		ppb(v/v)		90	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.59		ppb(v/v)		92	70 - 130
Tetrachloroethene	5.00	4.61		ppb(v/v)		92	70 - 130
Toluene	5.00	4.25		ppb(v/v)		85	70 - 130
1,2,4-Trichlorobenzene	5.00	4.72		ppb(v/v)		94	60 - 140
1,1,1-Trichloroethane	5.00	4.72		ppb(v/v)		94	70 - 130
1,1,2-Trichloroethane	5.00	4.49		ppb(v/v)		90	70 - 130
Trichloroethene	5.00	4.77		ppb(v/v)		95	70 - 130
Trichlorofluoromethane	5.00	5.41		ppb(v/v)		108	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.37		ppb(v/v)		107	70 - 130
1,2,4-Trimethylbenzene	5.00	4.56		ppb(v/v)		91	70 - 130
1,3,5-Trimethylbenzene	5.00	4.57		ppb(v/v)		91	70 - 130
Vinyl chloride	5.00	5.32		ppb(v/v)		106	70 - 130
m-Xylene & p-Xylene	10.0	8.76		ppb(v/v)		88	70 - 130
o-Xylene	5.00	4.25		ppb(v/v)		85	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	14.4		ug/m3		90	70 - 130
Benzyl chloride	25.9	24.9		ug/m3		96	70 - 130
Bromomethane	19.4	21.7		ug/m3		112	70 - 130
Carbon tetrachloride	31.5	34.1		ug/m3		108	70 - 130
Chlorobenzene	23.0	20.4		ug/m3		89	70 - 130
Chloroethane	13.2	14.6		ug/m3		111	70 - 130
Chloroform	24.4	22.7		ug/m3		93	70 - 130
Chloromethane	10.3	10.5		ug/m3		102	60 - 140
1,2-Dibromoethane (EDB)	38.4	34.6		ug/m3		90	70 - 130
1,2-Dichlorobenzene	30.1	26.5		ug/m3		88	70 - 130
1,3-Dichlorobenzene	30.1	26.7		ug/m3		89	70 - 130
1,4-Dichlorobenzene	30.1	26.7		ug/m3		89	70 - 130
Dichlorodifluoromethane	24.7	26.2		ug/m3		106	60 - 140
1,1-Dichloroethane	20.2	19.7		ug/m3		97	70 - 130
1,2-Dichloroethane	20.2	18.7		ug/m3		93	70 - 130
cis-1,2-Dichloroethene	19.8	19.6		ug/m3		99	70 - 130
1,1-Dichloroethene	19.8	20.8		ug/m3		105	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3H210000047C
Matrix: Air
Analysis Batch: 3233047

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	23.1	21.5		ug/m3		93	70 - 130
cis-1,3-Dichloropropene	22.7	21.2		ug/m3		94	70 - 130
trans-1,3-Dichloropropene	22.7	21.2		ug/m3		93	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	39.4		ug/m3		113	60 - 140
Ethylbenzene	21.7	18.9		ug/m3		87	70 - 130
Hexachlorobutadiene	53.3	41.7		ug/m3		78	60 - 140
Methylcyclohexane	20.1	18.6		ug/m3		93	20 - 180
Methylene chloride	17.4	17.8		ug/m3		102	70 - 130
Styrene	21.3	19.1		ug/m3		90	70 - 130
1,1,2,2-Tetrachloroethane	34.3	31.5		ug/m3		92	70 - 130
Tetrachloroethene	33.9	31.3		ug/m3		92	70 - 130
Toluene	18.8	16.0		ug/m3		85	70 - 130
1,2,4-Trichlorobenzene	37.1	35.0		ug/m3		94	60 - 140
1,1,1-Trichloroethane	27.3	25.7		ug/m3		94	70 - 130
1,1,2-Trichloroethane	27.3	24.5		ug/m3		90	70 - 130
Trichloroethene	26.9	25.6		ug/m3		95	70 - 130
Trichlorofluoromethane	28.1	30.4		ug/m3		108	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	41.2		ug/m3		107	70 - 130
1,2,4-Trimethylbenzene	24.6	22.4		ug/m3		91	70 - 130
1,3,5-Trimethylbenzene	24.6	22.5		ug/m3		91	70 - 130
Vinyl chloride	12.8	13.6		ug/m3		106	70 - 130
m-Xylene & p-Xylene	43.4	38.1		ug/m3		88	70 - 130
o-Xylene	21.7	18.5		ug/m3		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-60713/3
Matrix: Air
Analysis Batch: 60713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	14	U	14		ppb v/v			09/04/13 14:55	1

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	57	U	57		ug/m3			09/04/13 14:55	1

Lab Sample ID: LCS 200-60713/2
Matrix: Air
Analysis Batch: 60713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	10.0	14	U	ppb v/v		115	70 - 130

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: LCS 200-60713/2
Matrix: Air
Analysis Batch: 60713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	41	57	U	ug/m3		115	70 - 130

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

GC/MS VOA

Analysis Batch: 3232019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3H160434001	AOI-09B-SVE-INF (081413)	Total	Air	TO-15	
H3H200000019B	Method Blank	Total	Air	TO-15	
H3H200000019C	Lab Control Sample	Total	Air	TO-15	

Analysis Batch: 3233047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3H160434002	AOI-09B-AS-OWS-INF (081413)	Total	Air	TO-15	
H3H210000047B	Method Blank	Total	Air	TO-15	
H3H210000047C	Lab Control Sample	Total	Air	TO-15	

Air - GC/MS VOA

Analysis Batch: 60713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-18256-1	AOI-09B-SVE-INF(081413)	Total/NA	Air	TO3	
200-18256-2	AOI-09B-AS-OWS-INF(081413)	Total/NA	Air	TO3	
LCS 200-60713/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-60713/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Client Sample ID: AOI-09B-SVE-INF(081413)

Lab Sample ID: 200-18256-1

Date Collected: 08/14/13 12:00

Matrix: Air

Date Received: 09/04/13 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		99	60713	09/05/13 09:27	BPL	TAL BUR

Client Sample ID: AOI-09B-AS-OWS-INF(081413)

Lab Sample ID: 200-18256-2

Date Collected: 08/14/13 12:20

Matrix: Air

Date Received: 09/04/13 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		14	60713	09/05/13 08:15	BPL	TAL BUR

Client Sample ID: AOI-09B-SVE-INF (081413)

Lab Sample ID: H3H160434001

Date Collected: 08/14/13 12:00

Matrix: Air

Date Received: 08/16/13 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		1642.26	3232019	08/20/13 08:42	AB	TAL KNX

Client Sample ID: AOI-09B-AS-OWS-INF (081413)

Lab Sample ID: H3H160434002

Date Collected: 08/14/13 12:20

Matrix: Air

Date Received: 08/16/13 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		18.76	3233047	08/20/13 13:31	HT	TAL KNX

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-14
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-14
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	04-13-14
Nevada	State Program	9	TN00009	07-31-14
New Jersey	NELAP	2	TN001	06-30-14
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-31-14
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-14
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-14
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-14
Virginia	NELAP	3	460176	09-14-13
Virginia	State Program	3	165	06-30-14
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-14

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-14
L-A-B	DoD ELAP		L2336	10-26-13
Louisiana	NELAP	6	176292	06-30-14
Maine	State Program	1	VT00008	04-17-15
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-14
New York	NELAP	2	10391	04-01-14

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00489	04-30-14
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3H160434

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-18256-1	AOI-09B-SVE-INF(081413)	Air	08/14/13 12:00	09/04/13 10:15
200-18256-2	AOI-09B-AS-OWS-INF(081413)	Air	08/14/13 12:20	09/04/13 10:15
H3H160434001	AOI-09B-SVE-INF (081413)	Air	08/14/13 12:00	08/16/13 10:35
H3H160434002	AOI-09B-AS-OWS-INF (081413)	Air	08/14/13 12:20	08/16/13 10:35

H3H1160434

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC081413.1

Send Results To:

Contact & Company Name: Tony Maffeo	Telephone: 248.994.2240
Address: 28550 Cabot Dr. Suite 500	Site Contact: Trevor Swarthout
City State Zip: Novi, MI 48377	Email: Tony.Maffeo@arcadis-us.com
Project Name/Location (City, State): RACER Buick City - Flint, MI	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature: Benjamin J. Lawrence

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	TO-3 (Total Voc's) C5-C10	TO-15 w/Methylcyclohexan as TIC	REMARKS
						E	E		KEYS: Preservative: A. None; Container: 1. Summa Canister A = Air
						# of Containers: 1	1		
						Container Information: 1	1		
						PARAMETER ANALYSIS & METHOD			
AOI-09B-SVE-INF (081413)	081413	1200		X	A		X	X	Cannister # 6680
AOI-09B-AS-OWS- INF (081413)	081413	1220		X	A		X	X	Cannister # 62342N

2- Boxes with Custody Seals
Received @ Ambient / Temp
RH 8/16/13
2 Boxes Fed Ex MSTR 904406715550
2 CANS, NO FLOWS

Special Instructions/Comments:

Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Test America - Knoxville, TN	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Terri Harlin	Printed Name: Terri Harlin
		Signature: Benjamin J. Lawrence	Signature: Terri Harlin	Signature: Terri Harlin
Specify Turnaround Requirements: Standard TAT	Sample Receipt:	Firm: ARCADIS	Firm: TAL	Firm: TAL
Fed-Ex Tracking #:	Condition/Cooler Temp:	Date/Time: 8/15/2013 0950	Date/Time: 8/15/13 095	Date/Time: 8/15/13 1114

RECEIVED by: Rita Hancock 8/16/13 10:35

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H3H160434

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓			☐ **19a** Other	

Quote #: 91261 PM Instructions: NA

Sample Receiving Associate: Rita Hancock Date: 8/16/13

QA026R24.doc, 060413

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3H160434*

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Can or Tedlar bag prep Time	Baro ID BZ Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (- in or + psig)	Analyst/Date	I / S	Baro ID BS BZ Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 8-19-13	1010	26.93	M1NC2	6680	-10.1	+0.6	8/19/13	S	28.81						12810	10	+5.2	10716
〃	〃	〃	M1NC3	62342N	-7.5		〃	x1	28.78	-7.6	+34.7							〃

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: H3I250434
Client Project/Site: B0064410.2013.0
Client Project Description: Racer - Buick City, MI

For:
ARCADIS U.S., Inc.
10559 Citation Drive
Suite 100
Brighton, MI 48116

Attn: Andrea Krevinghaus

Authorized for release by:
10/8/2013 11:50:37 AM

Terry Walker Wasmund, Project Manager
(865)291-3065
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 6
Client Sample Results 8
Surrogate Summary 14
QC Sample Results 15
QC Association Summary 24
Lab Chronicle 25
Certification Summary 26
Method Summary 28
Sample Summary 29
Chain of Custody 30
Receipt Checklists 31

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated result. Result is less than RL.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Air - GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

PROJECT NARRATIVE
H3I250434

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Subcontract

The following analyses were performed by the TestAmerica Burlington Laboratory (NELAP Accrediting Authority: NJDEP; Lab ID VT972), 30 Community Drive, Suite 11, South Burlington, VT 05403, (802) 660-1990, William Cicero, Laboratory Director: Volatile Organic Compounds in Ambient Air (EPA Method TO3).

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Quantitation for methylcyclohexane was based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for this additional analyte is fully established:

- The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
- There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
- The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
- The LCS recovery criteria are set at 20% to 180%.
- A method detection limit study has not been performed. The detection of the analyte is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

Job ID: H3I250434

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: Racer Buick City

Report Number: 200-18722-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 10/02/2013; the samples arrived in good condition.

TPH-GRO
Samples AOI-09B-SVE-INF(092413) and AOI-09B-AS-OWS-INF(092413) were analyzed for TPH-GRO in accordance with EPA Method TO-3. The samples were analyzed on 10/03/2013.

Samples AOI-09B-SVE-INF(092413)[55X] and AOI-09B-AS-OWS-INF(092413)[1.98X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Internal standard responses were outside of acceptance limits for the following sample(s): AOI-09B-SVE-INF(092413) (200-18722-1). The sample(s) shows evidence of matrix interference.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-SVE-INF(092413) — Lab Sample ID: 200-18722-1

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	55000	220000	*	770	770	55	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	220000	220000	*	3100	3100	55	TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF(092413) — Lab Sample ID: 200-18722-2

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	180	740		28	28	1.98	TO3	Total/NA

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Dil Fac	Method	Prep Type
TPH GRO as Octane (C5-C10)	740	740		110	110	1.98	TO3	Total/NA

Client Sample ID: AOI-09B-SVE-INF (092413) — Lab Sample ID: H3I250434001

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	190	600		55	15	275	TO-15	Total
Ethylbenzene	85	370		55	19	275	TO-15	Total
Methylcyclohexane	11000	42000		55	55	275	TO-15	Total
Methylene chloride	19	67	J B	140	12	275	TO-15	Total
Toluene	280	1100		55	15	275	TO-15	Total
1,2,4-Trimethylbenzene	210	1000		55	17	275	TO-15	Total
1,3,5-Trimethylbenzene	94	460		55	18	275	TO-15	Total
m-Xylene & p-Xylene	610	2600		55	33	275	TO-15	Total
o-Xylene	150	660		55	17	275	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	600	600		180	49	275	TO-15	Total
Ethylbenzene	370	370		240	81	275	TO-15	Total
Methylcyclohexane	42000	42000		220	220	275	TO-15	Total
Methylene chloride	67	67	J B	480	43	275	TO-15	Total
Toluene	1100	1100		210	56	275	TO-15	Total
1,2,4-Trimethylbenzene	1000	1000		270	85	275	TO-15	Total
1,3,5-Trimethylbenzene	460	460		270	88	275	TO-15	Total
m-Xylene & p-Xylene	2600	2600		240	140	275	TO-15	Total
o-Xylene	660	660		240	73	275	TO-15	Total

Client Sample ID: AOI-09B-AS-OWS-INF (092413) — Lab Sample ID: H3I250434002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Benzene	1.4	4.5		0.20	0.056	1	TO-15	Total
Carbon tetrachloride	0.055	0.35	J	0.20	0.038	1	TO-15	Total
Chloromethane	0.53	1.1		0.50	0.16	1	TO-15	Total
Dichlorodifluoromethane	0.48	2.4		0.20	0.068	1	TO-15	Total
Ethylbenzene	0.64	2.8		0.20	0.068	1	TO-15	Total
Methylcyclohexane	9.0	36		0.20	0.20	1	TO-15	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample ID: AOI-09B-AS-OWS-INF (092413) (Continued)

Lab Sample ID: H3I250434002

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Dil Fac	Method	Prep Type
Methylene chloride	0.24	0.82	J	0.50	0.045	1	TO-15	Total
Toluene	2.5	9.4		0.20	0.054	1	TO-15	Total
Trichlorofluoromethane	0.22	1.3		0.20	0.024	1	TO-15	Total
1,1,2-Trichloro-1,2,2-trifluoroethane	0.076	0.58	J	0.20	0.031	1	TO-15	Total
1,2,4-Trimethylbenzene	3.8	19		0.20	0.063	1	TO-15	Total
1,3,5-Trimethylbenzene	2.3	11		0.20	0.065	1	TO-15	Total
m-Xylene & p-Xylene	6.7	29		0.20	0.12	1	TO-15	Total
o-Xylene	3.0	13		0.20	0.061	1	TO-15	Total

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Dil Fac	Method	Prep Type
Benzene	4.5	4.5		0.64	0.18	1	TO-15	Total
Carbon tetrachloride	0.35	0.35	J	1.3	0.24	1	TO-15	Total
Chloromethane	1.1	1.1		1.0	0.33	1	TO-15	Total
Dichlorodifluoromethane	2.4	2.4		0.99	0.34	1	TO-15	Total
Ethylbenzene	2.8	2.8		0.87	0.30	1	TO-15	Total
Methylcyclohexane	36	36		0.80	0.80	1	TO-15	Total
Methylene chloride	0.82	0.82	J	1.7	0.16	1	TO-15	Total
Toluene	9.4	9.4		0.75	0.20	1	TO-15	Total
Trichlorofluoromethane	1.3	1.3		1.1	0.13	1	TO-15	Total
1,1,2-Trichloro-1,2,2-trifluoroethane	0.58	0.58	J	1.5	0.24	1	TO-15	Total
1,2,4-Trimethylbenzene	19	19		0.98	0.31	1	TO-15	Total
1,3,5-Trimethylbenzene	11	11		0.98	0.32	1	TO-15	Total
m-Xylene & p-Xylene	29	29		0.87	0.52	1	TO-15	Total
o-Xylene	13	13		0.87	0.26	1	TO-15	Total

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-SVE-INF(092413)
Lab Sample ID: 200-18722-1
Date Collected: 09/24/13 12:00
Matrix: Air
Date Received: 10/02/13 10:00
Sample Container: Summa Canister 6L

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	55000	220000	*	770	770		10/03/13 09:15	55

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	220000	220000	*	3100	3100		10/03/13 09:15	55

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-AS-OWS-INF(092413)
Date Collected: 09/24/13 12:20
Date Received: 10/02/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-18722-2
Matrix: Air

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result ppb v/v	Result ug/m3	Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	180	740		28	28		10/03/13 10:02	1.98

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	740	740		110	110		10/03/13 10:02	1.98

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-SVE-INF (092413)
Date Collected: 09/24/13 12:00
Date Received: 09/25/13 10:00

Lab Sample ID: H3I250434001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**190**	**600**		55	15		09/28/13 10:32	275
Benzyl chloride	ND	ND		110	21		09/28/13 10:32	275
Bromomethane	ND	ND		55	8.8		09/28/13 10:32	275
Carbon tetrachloride	ND	ND		55	10		09/28/13 10:32	275
Chlorobenzene	ND	ND		55	13		09/28/13 10:32	275
Chloroethane	ND	ND		55	9.6		09/28/13 10:32	275
Chloroform	ND	ND		55	10		09/28/13 10:32	275
Chloromethane	ND	ND		140	44		09/28/13 10:32	275
1,2-Dibromoethane (EDB)	ND	ND		55	12		09/28/13 10:32	275
1,2-Dichlorobenzene	ND	ND		55	19		09/28/13 10:32	275
1,3-Dichlorobenzene	ND	ND		55	18		09/28/13 10:32	275
1,4-Dichlorobenzene	ND	ND		55	18		09/28/13 10:32	275
Dichlorodifluoromethane	ND	ND		55	19		09/28/13 10:32	275
1,1-Dichloroethane	ND	ND		55	7.2		09/28/13 10:32	275
1,2-Dichloroethane	ND	ND		55	13		09/28/13 10:32	275
cis-1,2-Dichloroethene	ND	ND		55	16		09/28/13 10:32	275
1,1-Dichloroethene	ND	ND		55	9.4		09/28/13 10:32	275
1,2-Dichloropropane	ND	ND		55	14		09/28/13 10:32	275
cis-1,3-Dichloropropene	ND	ND		55	20		09/28/13 10:32	275
trans-1,3-Dichloropropene	ND	ND		55	13		09/28/13 10:32	275
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		55	8.8		09/28/13 10:32	275
Ethylbenzene	**85**	**370**		55	19		09/28/13 10:32	275
Hexachlorobutadiene	ND	ND		280	21		09/28/13 10:32	275
Methylcyclohexane	**11000**	**42000**		55	55		09/28/13 10:32	275
Methylene chloride	**19**	**67**	**J B**	140	12		09/28/13 10:32	275
Styrene	ND	ND		55	16		09/28/13 10:32	275
1,1,2,2-Tetrachloroethane	ND	ND		55	17		09/28/13 10:32	275
Tetrachloroethene	ND	ND		55	11		09/28/13 10:32	275
Toluene	**280**	**1100**		55	15		09/28/13 10:32	275
1,2,4-Trichlorobenzene	ND	ND		280	27		09/28/13 10:32	275
1,1,1-Trichloroethane	ND	ND		55	8.2		09/28/13 10:32	275
1,1,2-Trichloroethane	ND	ND		55	15		09/28/13 10:32	275
Trichloroethene	ND	ND		55	9.9		09/28/13 10:32	275
Trichlorofluoromethane	ND	ND		55	6.6		09/28/13 10:32	275
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		55	8.5		09/28/13 10:32	275
1,2,4-Trimethylbenzene	**210**	**1000**		55	17		09/28/13 10:32	275
1,3,5-Trimethylbenzene	**94**	**460**		55	18		09/28/13 10:32	275
Vinyl chloride	ND	ND		55	20		09/28/13 10:32	275
m-Xylene & p-Xylene	**610**	**2600**		55	33		09/28/13 10:32	275
o-Xylene	**150**	**660**		55	17		09/28/13 10:32	275

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**600**	**600**		180	49		09/28/13 10:32	275
Benzyl chloride	ND	ND		570	110		09/28/13 10:32	275
Bromomethane	ND	ND		210	34		09/28/13 10:32	275
Carbon tetrachloride	ND	ND		350	66		09/28/13 10:32	275
Chlorobenzene	ND	ND		250	62		09/28/13 10:32	275
Chloroethane	ND	ND		150	25		09/28/13 10:32	275

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-SVE-INF (092413)
Date Collected: 09/24/13 12:00
Date Received: 09/25/13 10:00

Lab Sample ID: H3I250434001
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		270	51		09/28/13 10:32	275
Chloromethane	ND	ND		280	91		09/28/13 10:32	275
1,2-Dibromoethane (EDB)	ND	ND		420	93		09/28/13 10:32	275
1,2-Dichlorobenzene	ND	ND		330	120		09/28/13 10:32	275
1,3-Dichlorobenzene	ND	ND		330	110		09/28/13 10:32	275
1,4-Dichlorobenzene	ND	ND		330	110		09/28/13 10:32	275
Dichlorodifluoromethane	ND	ND		270	92		09/28/13 10:32	275
1,1-Dichloroethane	ND	ND		220	29		09/28/13 10:32	275
1,2-Dichloroethane	ND	ND		220	52		09/28/13 10:32	275
cis-1,2-Dichloroethene	ND	ND		220	65		09/28/13 10:32	275
1,1-Dichloroethene	ND	ND		220	37		09/28/13 10:32	275
1,2-Dichloropropane	ND	ND		250	66		09/28/13 10:32	275
cis-1,3-Dichloropropene	ND	ND		250	92		09/28/13 10:32	275
trans-1,3-Dichloropropene	ND	ND		250	60		09/28/13 10:32	275
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		380	62		09/28/13 10:32	275
Ethylbenzene	**370**	**370**		240	81		09/28/13 10:32	275
Hexachlorobutadiene	ND	ND		2900	230		09/28/13 10:32	275
Methylcyclohexane	**42000**	**42000**		220	220		09/28/13 10:32	275
Methylene chloride	**67**	**67**	**J B**	480	43		09/28/13 10:32	275
Styrene	ND	ND		230	68		09/28/13 10:32	275
1,1,2,2-Tetrachloroethane	ND	ND		380	120		09/28/13 10:32	275
Tetrachloroethene	ND	ND		370	75		09/28/13 10:32	275
Toluene	**1100**	**1100**		210	56		09/28/13 10:32	275
1,2,4-Trichlorobenzene	ND	ND		2000	200		09/28/13 10:32	275
1,1,1-Trichloroethane	ND	ND		300	45		09/28/13 10:32	275
1,1,2-Trichloroethane	ND	ND		300	81		09/28/13 10:32	275
Trichloroethene	ND	ND		300	53		09/28/13 10:32	275
Trichlorofluoromethane	ND	ND		310	37		09/28/13 10:32	275
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		420	65		09/28/13 10:32	275
1,2,4-Trimethylbenzene	**1000**	**1000**		270	85		09/28/13 10:32	275
1,3,5-Trimethylbenzene	**460**	**460**		270	88		09/28/13 10:32	275
Vinyl chloride	ND	ND		140	50		09/28/13 10:32	275
m-Xylene & p-Xylene	**2600**	**2600**		240	140		09/28/13 10:32	275
o-Xylene	**660**	**660**		240	73		09/28/13 10:32	275

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*60 - 140*		*09/28/13 10:32*	*275*

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-AS-OWS-INF (092413)
Date Collected: 09/24/13 12:20
Date Received: 09/25/13 10:00

Lab Sample ID: H3I250434002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Analyte	Result ppb(v/v)	Result ug/m3	Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	**1.4**	**4.5**		0.20	0.056		09/29/13 16:39	1
Benzyl chloride	ND	ND		0.40	0.078		09/29/13 16:39	1
Bromomethane	ND	ND		0.20	0.032		09/29/13 16:39	1
Carbon tetrachloride	**0.055**	**0.35**	**J**	0.20	0.038		09/29/13 16:39	1
Chlorobenzene	ND	ND		0.20	0.049		09/29/13 16:39	1
Chloroethane	ND	ND		0.20	0.035		09/29/13 16:39	1
Chloroform	ND	ND		0.20	0.038		09/29/13 16:39	1
Chloromethane	**0.53**	**1.1**		0.50	0.16		09/29/13 16:39	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		09/29/13 16:39	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		09/29/13 16:39	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		09/29/13 16:39	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		09/29/13 16:39	1
Dichlorodifluoromethane	**0.48**	**2.4**		0.20	0.068		09/29/13 16:39	1
1,1-Dichloroethane	ND	ND		0.20	0.026		09/29/13 16:39	1
1,2-Dichloroethane	ND	ND		0.20	0.047		09/29/13 16:39	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		09/29/13 16:39	1
1,1-Dichloroethene	ND	ND		0.20	0.034		09/29/13 16:39	1
1,2-Dichloropropane	ND	ND		0.20	0.052		09/29/13 16:39	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		09/29/13 16:39	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		09/29/13 16:39	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		09/29/13 16:39	1
Ethylbenzene	**0.64**	**2.8**		0.20	0.068		09/29/13 16:39	1
Hexachlorobutadiene	ND	ND		1.0	0.078		09/29/13 16:39	1
Methylcyclohexane	**9.0**	**36**		0.20	0.20		09/29/13 16:39	1
Methylene chloride	**0.24**	**0.82**	**J**	0.50	0.045		09/29/13 16:39	1
Styrene	ND	ND		0.20	0.058		09/29/13 16:39	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		09/29/13 16:39	1
Tetrachloroethene	ND	ND		0.20	0.040		09/29/13 16:39	1
Toluene	**2.5**	**9.4**		0.20	0.054		09/29/13 16:39	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		09/29/13 16:39	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		09/29/13 16:39	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		09/29/13 16:39	1
Trichloroethene	ND	ND		0.20	0.036		09/29/13 16:39	1
Trichlorofluoromethane	**0.22**	**1.3**		0.20	0.024		09/29/13 16:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.076**	**0.58**	**J**	0.20	0.031		09/29/13 16:39	1
1,2,4-Trimethylbenzene	**3.8**	**19**		0.20	0.063		09/29/13 16:39	1
1,3,5-Trimethylbenzene	**2.3**	**11**		0.20	0.065		09/29/13 16:39	1
Vinyl chloride	ND	ND		0.20	0.071		09/29/13 16:39	1
m-Xylene & p-Xylene	**6.7**	**29**		0.20	0.12		09/29/13 16:39	1
o-Xylene	**3.0**	**13**		0.20	0.061		09/29/13 16:39	1

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	**4.5**	**4.5**		0.64	0.18		09/29/13 16:39	1
Benzyl chloride	ND	ND		2.1	0.40		09/29/13 16:39	1
Bromomethane	ND	ND		0.78	0.12		09/29/13 16:39	1
Carbon tetrachloride	**0.35**	**0.35**	**J**	1.3	0.24		09/29/13 16:39	1
Chlorobenzene	ND	ND		0.92	0.23		09/29/13 16:39	1
Chloroethane	ND	ND		0.53	0.092		09/29/13 16:39	1

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-AS-OWS-INF (092413)
Date Collected: 09/24/13 12:20
Date Received: 09/25/13 10:00

Lab Sample ID: H3I250434002
Matrix: Air

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Analyte	Result ug/m3	Result ug/m3	Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloroform	ND	ND		0.98	0.19		09/29/13 16:39	1
Chloromethane	**1.1**	**1.1**		1.0	0.33		09/29/13 16:39	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		09/29/13 16:39	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		09/29/13 16:39	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		09/29/13 16:39	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		09/29/13 16:39	1
Dichlorodifluoromethane	**2.4**	**2.4**		0.99	0.34		09/29/13 16:39	1
1,1-Dichloroethane	ND	ND		0.81	0.11		09/29/13 16:39	1
1,2-Dichloroethane	ND	ND		0.81	0.19		09/29/13 16:39	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		09/29/13 16:39	1
1,1-Dichloroethene	ND	ND		0.79	0.13		09/29/13 16:39	1
1,2-Dichloropropane	ND	ND		0.92	0.24		09/29/13 16:39	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		09/29/13 16:39	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		09/29/13 16:39	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		09/29/13 16:39	1
Ethylbenzene	**2.8**	**2.8**		0.87	0.30		09/29/13 16:39	1
Hexachlorobutadiene	ND	ND		11	0.83		09/29/13 16:39	1
Methylcyclohexane	**36**	**36**		0.80	0.80		09/29/13 16:39	1
Methylene chloride	**0.82**	**0.82**	**J**	1.7	0.16		09/29/13 16:39	1
Styrene	ND	ND		0.85	0.25		09/29/13 16:39	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		09/29/13 16:39	1
Tetrachloroethene	ND	ND		1.4	0.27		09/29/13 16:39	1
Toluene	**9.4**	**9.4**		0.75	0.20		09/29/13 16:39	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		09/29/13 16:39	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		09/29/13 16:39	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		09/29/13 16:39	1
Trichloroethene	ND	ND		1.1	0.19		09/29/13 16:39	1
Trichlorofluoromethane	**1.3**	**1.3**		1.1	0.13		09/29/13 16:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.58**	**0.58**	**J**	1.5	0.24		09/29/13 16:39	1
1,2,4-Trimethylbenzene	**19**	**19**		0.98	0.31		09/29/13 16:39	1
1,3,5-Trimethylbenzene	**11**	**11**		0.98	0.32		09/29/13 16:39	1
Vinyl chloride	ND	ND		0.51	0.18		09/29/13 16:39	1
m-Xylene & p-Xylene	**29**	**29**		0.87	0.52		09/29/13 16:39	1
o-Xylene	**13**	**13**		0.87	0.26		09/29/13 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*60 - 140*		*09/29/13 16:39*	*1*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Matrix: Air **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB								
Lab Sample ID	Client Sample ID	(60-140)								
H3I250434001	AOI-09B-SVE-INF (092413)	107								
H3I250434002	AOI-09B-AS-OWS-INF (092413)	105								
H3I290000010B	Method Blank	103								
H3I290000010C	Lab Control Sample	104								
H3I300000017B	Method Blank	99								
H3I300000017C	Lab Control Sample	103								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: TO-15 - Volatile Organics by GC/MS (TO-15)

Lab Sample ID: H3I290000010B
Matrix: Air
Analysis Batch: 3272010

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		09/27/13 15:12	1
Benzyl chloride	ND	ND		0.40	0.078		09/27/13 15:12	1
Bromomethane	ND	ND		0.20	0.032		09/27/13 15:12	1
Carbon tetrachloride	ND	ND		0.20	0.038		09/27/13 15:12	1
Chlorobenzene	ND	ND		0.20	0.049		09/27/13 15:12	1
Chloroethane	ND	ND		0.20	0.035		09/27/13 15:12	1
Chloroform	ND	ND		0.20	0.038		09/27/13 15:12	1
Chloromethane	ND	ND		0.50	0.16		09/27/13 15:12	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		09/27/13 15:12	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		09/27/13 15:12	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		09/27/13 15:12	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		09/27/13 15:12	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		09/27/13 15:12	1
1,1-Dichloroethane	ND	ND		0.20	0.026		09/27/13 15:12	1
1,2-Dichloroethane	ND	ND		0.20	0.047		09/27/13 15:12	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		09/27/13 15:12	1
1,1-Dichloroethene	ND	ND		0.20	0.034		09/27/13 15:12	1
1,2-Dichloropropane	ND	ND		0.20	0.052		09/27/13 15:12	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		09/27/13 15:12	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		09/27/13 15:12	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		09/27/13 15:12	1
Ethylbenzene	ND	ND		0.20	0.068		09/27/13 15:12	1
Hexachlorobutadiene	ND	ND		1.0	0.078		09/27/13 15:12	1
Methylcyclohexane	ND	ND		0.20	0.20		09/27/13 15:12	1
Methylene chloride	0.19	0.65	J	0.50	0.045		09/27/13 15:12	1
Styrene	ND	ND		0.20	0.058		09/27/13 15:12	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		09/27/13 15:12	1
Tetrachloroethene	ND	ND		0.20	0.040		09/27/13 15:12	1
Toluene	ND	ND		0.20	0.054		09/27/13 15:12	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		09/27/13 15:12	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		09/27/13 15:12	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		09/27/13 15:12	1
Trichloroethene	ND	ND		0.20	0.036		09/27/13 15:12	1
Trichlorofluoromethane	ND	ND		0.20	0.024		09/27/13 15:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		09/27/13 15:12	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		09/27/13 15:12	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		09/27/13 15:12	1
Vinyl chloride	ND	ND		0.20	0.071		09/27/13 15:12	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		09/27/13 15:12	1
o-Xylene	ND	ND		0.20	0.061		09/27/13 15:12	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		09/27/13 15:12	1
Benzyl chloride	ND	ND		2.1	0.40		09/27/13 15:12	1
Bromomethane	ND	ND		0.78	0.12		09/27/13 15:12	1
Carbon tetrachloride	ND	ND		1.3	0.24		09/27/13 15:12	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I290000010B
Matrix: Air
Analysis Batch: 3272010

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	ND		0.92	0.23		09/27/13 15:12	1
Chloroethane	ND	ND		0.53	0.092		09/27/13 15:12	1
Chloroform	ND	ND		0.98	0.19		09/27/13 15:12	1
Chloromethane	ND	ND		1.0	0.33		09/27/13 15:12	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		09/27/13 15:12	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		09/27/13 15:12	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		09/27/13 15:12	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		09/27/13 15:12	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		09/27/13 15:12	1
1,1-Dichloroethane	ND	ND		0.81	0.11		09/27/13 15:12	1
1,2-Dichloroethane	ND	ND		0.81	0.19		09/27/13 15:12	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		09/27/13 15:12	1
1,1-Dichloroethene	ND	ND		0.79	0.13		09/27/13 15:12	1
1,2-Dichloropropane	ND	ND		0.92	0.24		09/27/13 15:12	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		09/27/13 15:12	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		09/27/13 15:12	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		09/27/13 15:12	1
Ethylbenzene	ND	ND		0.87	0.30		09/27/13 15:12	1
Hexachlorobutadiene	ND	ND		11	0.83		09/27/13 15:12	1
Methylcyclohexane	ND	ND		0.80	0.80		09/27/13 15:12	1
Methylene chloride	0.65	0.65	J	1.7	0.16		09/27/13 15:12	1
Styrene	ND	ND		0.85	0.25		09/27/13 15:12	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		09/27/13 15:12	1
Tetrachloroethene	ND	ND		1.4	0.27		09/27/13 15:12	1
Toluene	ND	ND		0.75	0.20		09/27/13 15:12	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		09/27/13 15:12	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		09/27/13 15:12	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		09/27/13 15:12	1
Trichloroethene	ND	ND		1.1	0.19		09/27/13 15:12	1
Trichlorofluoromethane	ND	ND		1.1	0.13		09/27/13 15:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		09/27/13 15:12	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		09/27/13 15:12	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		09/27/13 15:12	1
Vinyl chloride	ND	ND		0.51	0.18		09/27/13 15:12	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		09/27/13 15:12	1
o-Xylene	ND	ND		0.87	0.26		09/27/13 15:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*60 - 140*		*09/27/13 15:12*	*1*

Lab Sample ID: H3I290000010C
Matrix: Air
Analysis Batch: 3272010

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.15		ppb(v/v)		83	70 - 130
Benzyl chloride	5.00	5.85		ppb(v/v)		117	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I290000010C
Matrix: Air
Analysis Batch: 3272010

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	5.00	5.89		ppb(v/v)		118	70 - 130
Carbon tetrachloride	5.00	5.38		ppb(v/v)		108	70 - 130
Chlorobenzene	5.00	4.41		ppb(v/v)		88	70 - 130
Chloroethane	5.00	6.02		ppb(v/v)		120	70 - 130
Chloroform	5.00	4.82		ppb(v/v)		96	70 - 130
Chloromethane	5.00	5.66		ppb(v/v)		113	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.50		ppb(v/v)		90	70 - 130
1,2-Dichlorobenzene	5.00	4.96		ppb(v/v)		99	70 - 130
1,3-Dichlorobenzene	5.00	4.90		ppb(v/v)		98	70 - 130
1,4-Dichlorobenzene	5.00	4.98		ppb(v/v)		100	70 - 130
Dichlorodifluoromethane	5.00	5.82		ppb(v/v)		116	60 - 140
1,1-Dichloroethane	5.00	5.15		ppb(v/v)		103	70 - 130
1,2-Dichloroethane	5.00	4.70		ppb(v/v)		94	70 - 130
cis-1,2-Dichloroethene	5.00	4.96		ppb(v/v)		99	70 - 130
1,1-Dichloroethene	5.00	5.41		ppb(v/v)		108	70 - 130
1,2-Dichloropropane	5.00	4.73		ppb(v/v)		95	70 - 130
cis-1,3-Dichloropropene	5.00	4.69		ppb(v/v)		94	70 - 130
trans-1,3-Dichloropropene	5.00	4.96		ppb(v/v)		99	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	6.26		ppb(v/v)		125	60 - 140
Ethylbenzene	5.00	4.82		ppb(v/v)		96	70 - 130
Hexachlorobutadiene	5.00	5.05		ppb(v/v)		101	60 - 140
Methylcyclohexane	5.00	4.84		ppb(v/v)		97	20 - 180
Methylene chloride	5.00	5.28		ppb(v/v)		106	70 - 130
Styrene	5.00	4.93		ppb(v/v)		99	70 - 130
1,1,2,2-Tetrachloroethane	5.00	5.22		ppb(v/v)		104	70 - 130
Tetrachloroethene	5.00	4.62		ppb(v/v)		92	70 - 130
Toluene	5.00	4.29		ppb(v/v)		86	70 - 130
1,2,4-Trichlorobenzene	5.00	6.15		ppb(v/v)		123	60 - 140
1,1,1-Trichloroethane	5.00	4.96		ppb(v/v)		99	70 - 130
1,1,2-Trichloroethane	5.00	4.55		ppb(v/v)		91	70 - 130
Trichloroethene	5.00	4.94		ppb(v/v)		99	70 - 130
Trichlorofluoromethane	5.00	5.79		ppb(v/v)		116	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.58		ppb(v/v)		112	70 - 130
1,2,4-Trimethylbenzene	5.00	5.31		ppb(v/v)		106	70 - 130
1,3,5-Trimethylbenzene	5.00	5.14		ppb(v/v)		103	70 - 130
Vinyl chloride	5.00	5.76		ppb(v/v)		115	70 - 130
m-Xylene & p-Xylene	10.0	9.94		ppb(v/v)		99	70 - 130
o-Xylene	5.00	4.86		ppb(v/v)		97	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	13.3		ug/m3		83	70 - 130
Benzyl chloride	25.9	30.3		ug/m3		117	70 - 130
Bromomethane	19.4	22.9		ug/m3		118	70 - 130
Carbon tetrachloride	31.5	33.9		ug/m3		108	70 - 130
Chlorobenzene	23.0	20.2		ug/m3		88	70 - 130
Chloroethane	13.2	15.9		ug/m3		120	70 - 130
Chloroform	24.4	23.5		ug/m3		96	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I290000010C
Matrix: Air
Analysis Batch: 3272010

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.3	11.7		ug/m3		113	60 - 140
1,2-Dibromoethane (EDB)	38.4	34.6		ug/m3		90	70 - 130
1,2-Dichlorobenzene	30.1	29.8		ug/m3		99	70 - 130
1,3-Dichlorobenzene	30.1	29.4		ug/m3		98	70 - 130
1,4-Dichlorobenzene	30.1	29.9		ug/m3		100	70 - 130
Dichlorodifluoromethane	24.7	28.8		ug/m3		116	60 - 140
1,1-Dichloroethane	20.2	20.9		ug/m3		103	70 - 130
1,2-Dichloroethane	20.2	19.0		ug/m3		94	70 - 130
cis-1,2-Dichloroethene	19.8	19.7		ug/m3		99	70 - 130
1,1-Dichloroethene	19.8	21.4		ug/m3		108	70 - 130
1,2-Dichloropropane	23.1	21.8		ug/m3		95	70 - 130
cis-1,3-Dichloropropene	22.7	21.3		ug/m3		94	70 - 130
trans-1,3-Dichloropropene	22.7	22.5		ug/m3		99	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	43.7		ug/m3		125	60 - 140
Ethylbenzene	21.7	20.9		ug/m3		96	70 - 130
Hexachlorobutadiene	53.3	53.8		ug/m3		101	60 - 140
Methylcyclohexane	20.1	19.4		ug/m3		97	20 - 180
Methylene chloride	17.4	18.3		ug/m3		106	70 - 130
Styrene	21.3	21.0		ug/m3		99	70 - 130
1,1,2,2-Tetrachloroethane	34.3	35.9		ug/m3		104	70 - 130
Tetrachloroethene	33.9	31.4		ug/m3		92	70 - 130
Toluene	18.8	16.2		ug/m3		86	70 - 130
1,2,4-Trichlorobenzene	37.1	45.6		ug/m3		123	60 - 140
1,1,1-Trichloroethane	27.3	27.1		ug/m3		99	70 - 130
1,1,2-Trichloroethane	27.3	24.8		ug/m3		91	70 - 130
Trichloroethene	26.9	26.6		ug/m3		99	70 - 130
Trichlorofluoromethane	28.1	32.5		ug/m3		116	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	42.7		ug/m3		112	70 - 130
1,2,4-Trimethylbenzene	24.6	26.1		ug/m3		106	70 - 130
1,3,5-Trimethylbenzene	24.6	25.3		ug/m3		103	70 - 130
Vinyl chloride	12.8	14.7		ug/m3		115	70 - 130
m-Xylene & p-Xylene	43.4	43.1		ug/m3		99	70 - 130
o-Xylene	21.7	21.1		ug/m3		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*60 - 140*

Lab Sample ID: H3I300000017B
Matrix: Air
Analysis Batch: 3273017

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.20	0.056		09/29/13 15:41	1
Benzyl chloride	ND	ND		0.40	0.078		09/29/13 15:41	1
Bromomethane	ND	ND		0.20	0.032		09/29/13 15:41	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I300000017B
Matrix: Air
Analysis Batch: 3273017

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ppb(v/v)	MB Result ug/m3	MB Qualifier	RL ppb(v/v)	MDL ppb(v/v)	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND	ND		0.20	0.038		09/29/13 15:41	1
Chlorobenzene	ND	ND		0.20	0.049		09/29/13 15:41	1
Chloroethane	ND	ND		0.20	0.035		09/29/13 15:41	1
Chloroform	ND	ND		0.20	0.038		09/29/13 15:41	1
Chloromethane	ND	ND		0.50	0.16		09/29/13 15:41	1
1,2-Dibromoethane (EDB)	ND	ND		0.20	0.044		09/29/13 15:41	1
1,2-Dichlorobenzene	ND	ND		0.20	0.070		09/29/13 15:41	1
1,3-Dichlorobenzene	ND	ND		0.20	0.065		09/29/13 15:41	1
1,4-Dichlorobenzene	ND	ND		0.20	0.064		09/29/13 15:41	1
Dichlorodifluoromethane	ND	ND		0.20	0.068		09/29/13 15:41	1
1,1-Dichloroethane	ND	ND		0.20	0.026		09/29/13 15:41	1
1,2-Dichloroethane	ND	ND		0.20	0.047		09/29/13 15:41	1
cis-1,2-Dichloroethene	ND	ND		0.20	0.060		09/29/13 15:41	1
1,1-Dichloroethene	ND	ND		0.20	0.034		09/29/13 15:41	1
1,2-Dichloropropane	ND	ND		0.20	0.052		09/29/13 15:41	1
cis-1,3-Dichloropropene	ND	ND		0.20	0.074		09/29/13 15:41	1
trans-1,3-Dichloropropene	ND	ND		0.20	0.048		09/29/13 15:41	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		0.20	0.032		09/29/13 15:41	1
Ethylbenzene	ND	ND		0.20	0.068		09/29/13 15:41	1
Hexachlorobutadiene	ND	ND		1.0	0.078		09/29/13 15:41	1
Methylcyclohexane	ND	ND		0.20	0.20		09/29/13 15:41	1
Methylene chloride	ND	0.13		0.50	0.045		09/29/13 15:41	1
Styrene	ND	ND		0.20	0.058		09/29/13 15:41	1
1,1,2,2-Tetrachloroethane	ND	ND		0.20	0.061		09/29/13 15:41	1
Tetrachloroethene	ND	ND		0.20	0.040		09/29/13 15:41	1
Toluene	ND	ND		0.20	0.054		09/29/13 15:41	1
1,2,4-Trichlorobenzene	ND	ND		1.0	0.098		09/29/13 15:41	1
1,1,1-Trichloroethane	ND	ND		0.20	0.030		09/29/13 15:41	1
1,1,2-Trichloroethane	ND	ND		0.20	0.054		09/29/13 15:41	1
Trichloroethene	ND	ND		0.20	0.036		09/29/13 15:41	1
Trichlorofluoromethane	ND	ND		0.20	0.024		09/29/13 15:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		0.20	0.031		09/29/13 15:41	1
1,2,4-Trimethylbenzene	ND	ND		0.20	0.063		09/29/13 15:41	1
1,3,5-Trimethylbenzene	ND	ND		0.20	0.065		09/29/13 15:41	1
Vinyl chloride	ND	ND		0.20	0.071		09/29/13 15:41	1
m-Xylene & p-Xylene	ND	ND		0.20	0.12		09/29/13 15:41	1
o-Xylene	ND	ND		0.20	0.061		09/29/13 15:41	1

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Benzene	ND	ND		0.64	0.18		09/29/13 15:41	1
Benzyl chloride	ND	ND		2.1	0.40		09/29/13 15:41	1
Bromomethane	ND	ND		0.78	0.12		09/29/13 15:41	1
Carbon tetrachloride	ND	ND		1.3	0.24		09/29/13 15:41	1
Chlorobenzene	ND	ND		0.92	0.23		09/29/13 15:41	1
Chloroethane	ND	ND		0.53	0.092		09/29/13 15:41	1
Chloroform	ND	ND		0.98	0.19		09/29/13 15:41	1

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I300000017B
Matrix: Air
Analysis Batch: 3273017

Client Sample ID: Method Blank
Prep Type: Total

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	MDL ug/m3	Prepared	Analyzed	Dil Fac
Chloromethane	ND	ND		1.0	0.33		09/29/13 15:41	1
1,2-Dibromoethane (EDB)	ND	ND		1.5	0.34		09/29/13 15:41	1
1,2-Dichlorobenzene	ND	ND		1.2	0.42		09/29/13 15:41	1
1,3-Dichlorobenzene	ND	ND		1.2	0.39		09/29/13 15:41	1
1,4-Dichlorobenzene	ND	ND		1.2	0.38		09/29/13 15:41	1
Dichlorodifluoromethane	ND	ND		0.99	0.34		09/29/13 15:41	1
1,1-Dichloroethane	ND	ND		0.81	0.11		09/29/13 15:41	1
1,2-Dichloroethane	ND	ND		0.81	0.19		09/29/13 15:41	1
cis-1,2-Dichloroethene	ND	ND		0.79	0.24		09/29/13 15:41	1
1,1-Dichloroethene	ND	ND		0.79	0.13		09/29/13 15:41	1
1,2-Dichloropropane	ND	ND		0.92	0.24		09/29/13 15:41	1
cis-1,3-Dichloropropene	ND	ND		0.91	0.34		09/29/13 15:41	1
trans-1,3-Dichloropropene	ND	ND		0.91	0.22		09/29/13 15:41	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND		1.4	0.22		09/29/13 15:41	1
Ethylbenzene	ND	ND		0.87	0.30		09/29/13 15:41	1
Hexachlorobutadiene	ND	ND		11	0.83		09/29/13 15:41	1
Methylcyclohexane	ND	ND		0.80	0.80		09/29/13 15:41	1
Methylene chloride	0.13	0.13		1.7	0.16		09/29/13 15:41	1
Styrene	ND	ND		0.85	0.25		09/29/13 15:41	1
1,1,2,2-Tetrachloroethane	ND	ND		1.4	0.42		09/29/13 15:41	1
Tetrachloroethene	ND	ND		1.4	0.27		09/29/13 15:41	1
Toluene	ND	ND		0.75	0.20		09/29/13 15:41	1
1,2,4-Trichlorobenzene	ND	ND		7.4	0.73		09/29/13 15:41	1
1,1,1-Trichloroethane	ND	ND		1.1	0.16		09/29/13 15:41	1
1,1,2-Trichloroethane	ND	ND		1.1	0.29		09/29/13 15:41	1
Trichloroethene	ND	ND		1.1	0.19		09/29/13 15:41	1
Trichlorofluoromethane	ND	ND		1.1	0.13		09/29/13 15:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND		1.5	0.24		09/29/13 15:41	1
1,2,4-Trimethylbenzene	ND	ND		0.98	0.31		09/29/13 15:41	1
1,3,5-Trimethylbenzene	ND	ND		0.98	0.32		09/29/13 15:41	1
Vinyl chloride	ND	ND		0.51	0.18		09/29/13 15:41	1
m-Xylene & p-Xylene	ND	ND		0.87	0.52		09/29/13 15:41	1
o-Xylene	ND	ND		0.87	0.26		09/29/13 15:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*60 - 140*		*09/29/13 15:41*	*1*

Lab Sample ID: H3I300000017C
Matrix: Air
Analysis Batch: 3273017

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.61		ppb(v/v)		92	70 - 130
Benzyl chloride	5.00	4.16		ppb(v/v)		83	70 - 130
Bromomethane	5.00	5.70		ppb(v/v)		114	70 - 130
Carbon tetrachloride	5.00	4.85		ppb(v/v)		97	70 - 130
Chlorobenzene	5.00	4.30		ppb(v/v)		86	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I300000017C
Matrix: Air
Analysis Batch: 3273017

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	5.00	5.81		ppb(v/v)		116	70 - 130
Chloroform	5.00	5.08		ppb(v/v)		102	70 - 130
Chloromethane	5.00	5.37		ppb(v/v)		107	60 - 140
1,2-Dibromoethane (EDB)	5.00	4.33		ppb(v/v)		87	70 - 130
1,2-Dichlorobenzene	5.00	3.87		ppb(v/v)		77	70 - 130
1,3-Dichlorobenzene	5.00	3.93		ppb(v/v)		79	70 - 130
1,4-Dichlorobenzene	5.00	3.77		ppb(v/v)		75	70 - 130
Dichlorodifluoromethane	5.00	5.68		ppb(v/v)		114	60 - 140
1,1-Dichloroethane	5.00	5.34		ppb(v/v)		107	70 - 130
1,2-Dichloroethane	5.00	5.08		ppb(v/v)		102	70 - 130
cis-1,2-Dichloroethene	5.00	5.10		ppb(v/v)		102	70 - 130
1,1-Dichloroethene	5.00	5.29		ppb(v/v)		106	70 - 130
1,2-Dichloropropane	5.00	4.88		ppb(v/v)		98	70 - 130
cis-1,3-Dichloropropene	5.00	4.54		ppb(v/v)		91	70 - 130
trans-1,3-Dichloropropene	5.00	4.64		ppb(v/v)		93	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	6.27		ppb(v/v)		125	60 - 140
Ethylbenzene	5.00	4.22		ppb(v/v)		84	70 - 130
Hexachlorobutadiene	5.00	3.70		ppb(v/v)		74	60 - 140
Methylcyclohexane	5.00	4.56		ppb(v/v)		91	20 - 180
Methylene chloride	5.00	5.14		ppb(v/v)		103	70 - 130
Styrene	5.00	4.06		ppb(v/v)		81	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.14		ppb(v/v)		83	70 - 130
Tetrachloroethene	5.00	4.54		ppb(v/v)		91	70 - 130
Toluene	5.00	4.29		ppb(v/v)		86	70 - 130
1,2,4-Trichlorobenzene	5.00	3.86		ppb(v/v)		77	60 - 140
1,1,1-Trichloroethane	5.00	5.26		ppb(v/v)		105	70 - 130
1,1,2-Trichloroethane	5.00	4.44		ppb(v/v)		89	70 - 130
Trichloroethene	5.00	4.59		ppb(v/v)		92	70 - 130
Trichlorofluoromethane	5.00	5.69		ppb(v/v)		114	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.46		ppb(v/v)		109	70 - 130
1,2,4-Trimethylbenzene	5.00	4.07		ppb(v/v)		81	70 - 130
1,3,5-Trimethylbenzene	5.00	3.97		ppb(v/v)		79	70 - 130
Vinyl chloride	5.00	5.57		ppb(v/v)		111	70 - 130
m-Xylene & p-Xylene	10.0	8.39		ppb(v/v)		84	70 - 130
o-Xylene	5.00	4.08		ppb(v/v)		82	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	16.0	14.7		ug/m3		92	70 - 130
Benzyl chloride	25.9	21.5		ug/m3		83	70 - 130
Bromomethane	19.4	22.1		ug/m3		114	70 - 130
Carbon tetrachloride	31.5	30.5		ug/m3		97	70 - 130
Chlorobenzene	23.0	19.8		ug/m3		86	70 - 130
Chloroethane	13.2	15.3		ug/m3		116	70 - 130
Chloroform	24.4	24.8		ug/m3		102	70 - 130
Chloromethane	10.3	11.1		ug/m3		107	60 - 140
1,2-Dibromoethane (EDB)	38.4	33.3		ug/m3		87	70 - 130
1,2-Dichlorobenzene	30.1	23.3		ug/m3		77	70 - 130

Method: TO-15 - Volatile Organics by GC/MS (TO-15) (Continued)

Lab Sample ID: H3I300000017C
Matrix: Air
Analysis Batch: 3273017

Client Sample ID: Lab Control Sample
Prep Type: Total

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	30.1	23.7		ug/m3		79	70 - 130
1,4-Dichlorobenzene	30.1	22.7		ug/m3		75	70 - 130
Dichlorodifluoromethane	24.7	28.1		ug/m3		114	60 - 140
1,1-Dichloroethane	20.2	21.6		ug/m3		107	70 - 130
1,2-Dichloroethane	20.2	20.6		ug/m3		102	70 - 130
cis-1,2-Dichloroethene	19.8	20.2		ug/m3		102	70 - 130
1,1-Dichloroethene	19.8	21.0		ug/m3		106	70 - 130
1,2-Dichloropropane	23.1	22.5		ug/m3		98	70 - 130
cis-1,3-Dichloropropene	22.7	20.6		ug/m3		91	70 - 130
trans-1,3-Dichloropropene	22.7	21.0		ug/m3		93	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	35.0	43.8		ug/m3		125	60 - 140
Ethylbenzene	21.7	18.3		ug/m3		84	70 - 130
Hexachlorobutadiene	53.3	39.4		ug/m3		74	60 - 140
Methylcyclohexane	20.1	18.3		ug/m3		91	20 - 180
Methylene chloride	17.4	17.8		ug/m3		103	70 - 130
Styrene	21.3	17.3		ug/m3		81	70 - 130
1,1,2,2-Tetrachloroethane	34.3	28.4		ug/m3		83	70 - 130
Tetrachloroethene	33.9	30.8		ug/m3		91	70 - 130
Toluene	18.8	16.2		ug/m3		86	70 - 130
1,2,4-Trichlorobenzene	37.1	28.6		ug/m3		77	60 - 140
1,1,1-Trichloroethane	27.3	28.7		ug/m3		105	70 - 130
1,1,2-Trichloroethane	27.3	24.2		ug/m3		89	70 - 130
Trichloroethene	26.9	24.7		ug/m3		92	70 - 130
Trichlorofluoromethane	28.1	32.0		ug/m3		114	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	38.3	41.9		ug/m3		109	70 - 130
1,2,4-Trimethylbenzene	24.6	20.0		ug/m3		81	70 - 130
1,3,5-Trimethylbenzene	24.6	19.5		ug/m3		79	70 - 130
Vinyl chloride	12.8	14.2		ug/m3		111	70 - 130
m-Xylene & p-Xylene	43.4	36.4		ug/m3		84	70 - 130
o-Xylene	21.7	17.7		ug/m3		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-62086/3
Matrix: Air
Analysis Batch: 62086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ppb v/v	MB Result ug/m3	MB Qualifier	RL ppb v/v	RL ppb v/v	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	14	57	U	14	14		10/02/13 13:26	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: MB 200-62086/3
Matrix: Air
Analysis Batch: 62086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result ug/m3	MB Result ug/m3	MB Qualifier	RL ug/m3	RL ug/m3	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	57	57	U	57	57		10/02/13 13:26	1

Lab Sample ID: LCS 200-62086/2
Matrix: Air
Analysis Batch: 62086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	10.0	14	U	ppb v/v		98	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	41	57	U	ug/m3		98	70 - 130

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

GC/MS VOA

Analysis Batch: 3272010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3I250434001	AOI-09B-SVE-INF (092413)	Total	Air	TO-15	
H3I290000010B	Method Blank	Total	Air	TO-15	
H3I290000010C	Lab Control Sample	Total	Air	TO-15	

Analysis Batch: 3273017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
H3I250434002	AOI-09B-AS-OWS-INF (092413)	Total	Air	TO-15	
H3I300000017B	Method Blank	Total	Air	TO-15	
H3I300000017C	Lab Control Sample	Total	Air	TO-15	

Air - GC/MS VOA

Analysis Batch: 62086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-18722-1	AOI-09B-SVE-INF(092413)	Total/NA	Air	TO3	
200-18722-2	AOI-09B-AS-OWS-INF(092413)	Total/NA	Air	TO3	
LCS 200-62086/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-62086/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Client Sample ID: AOI-09B-SVE-INF(092413)

Lab Sample ID: 200-18722-1

Date Collected: 09/24/13 12:00

Matrix: Air

Date Received: 10/02/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		55	100 mL	200 mL	62086	10/03/13 09:15	PAD	TAL BUR
	Instrument ID: G.i									

Client Sample ID: AOI-09B-AS-OWS-INF(092413)

Lab Sample ID: 200-18722-2

Date Collected: 09/24/13 12:20

Matrix: Air

Date Received: 10/02/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO3		1.98	200 mL	200 mL	62086	10/03/13 10:02	PAD	TAL BUR
	Instrument ID: G.i									

Client Sample ID: AOI-09B-SVE-INF (092413)

Lab Sample ID: H3I250434001

Date Collected: 09/24/13 12:00

Matrix: Air

Date Received: 09/25/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		275	mL	0 mL	3272010	09/28/13 10:32	AB	TAL KNX
	Instrument ID: MJ									

Client Sample ID: AOI-09B-AS-OWS-INF (092413)

Lab Sample ID: H3I250434002

Date Collected: 09/24/13 12:20

Matrix: Air

Date Received: 09/25/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	TO-15		1	mL	0 mL	3273017	09/29/13 16:39	AB	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-14
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-13
Florida	NELAP	4	E87177	06-30-14
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-13
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	04-13-14
Nevada	State Program	9	TN00009	07-31-14
New Jersey	NELAP	2	TN001	06-30-14
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-31-14
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-14
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-14
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-14
Virginia	NELAP	3	460176	09-14-14
Virginia	State Program	3	165	06-30-14
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-14

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-14
L-A-B	DoD ELAP		L2336	10-26-13 *
Louisiana	NELAP	6	176292	06-30-14
Maine	State Program	1	VT00008	04-17-15
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-14
New York	NELAP	2	10391	04-01-14

* Expired certification is currently pending renewal and is considered valid.

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00489	04-30-14
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organics by GC/MS (TO-15)	EPA-2	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-2 = EPA-2

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: B0064410.2013.0

TestAmerica Job ID: H3I250434

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-18722-1	AOI-09B-SVE-INF(092413)	Air	09/24/13 12:00	10/02/13 10:00
200-18722-2	AOI-09B-AS-OWS-INF(092413)	Air	09/24/13 12:20	10/02/13 10:00
H3I250434001	AOI-09B-SVE-INF (092413)	Air	09/24/13 12:00	09/25/13 10:00
H3I250434002	AOI-09B-AS-OWS-INF (092413)	Air	09/24/13 12:20	09/25/13 10:00

ARCADIS

H3I250434

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC092413.1

Send Results To:

Contact & Company Name:	Telephone:
Tony Maffeo	248.994.2240
Address:	**Site Contact:**
28550 Cabot Dr. Suite 500	Trevor Swarthout
City State Zip	**Email**
Novi, MI 48377	Tony.Maffeo@arcadis-us.com
Project Name/Location (City, State):	**Project #:**
RACER Buick City - Flint, MI	B0064410.2013.01500
Sampler's Printed Name:	**Sampler's Signature:**
Ben Lawrence	Benjamin J. Lawrence

KEYS

Preservative	Container	Matrix
A. None	1. Summa Cannister	A = Air

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	Preservative	# of Containers	Container Information	TO-3 (Total Voc's) C5-C10	TO-15 w/Methylcyclohexan as TIC	REMARKS
						E	1	1			
AOI-09B-SVE-INF (092413)	092413	1200		X	A		1	1	X	X	Cannister # 93272
AOI-09B-AS-OWS- INF (092413)	092413	1220		X	A		1	1	X	X	Cannister # 04413

1 BOX WITH CUSTODY SEAL
RECEIVED @ AMBIENT TEMP
R.H 9/25/13

1 BOX FEDEX 904406719864
2 CANS, NO FLOWS

Special Instructions/Comments:

Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Test America - Knoxville, TN	Cooler Custody Seal ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Terri Harlin	Printed Name: RITA HANCOCK
		Signature: Benjamin J. Lawrence	Signature: Terri Harlin	Signature: Rita Hancock
Specify Turnaround Requirements: 1 Week	Sample Receipt:	Firm: ARCADIS	Firm: TAL	Firm: TA KNOX
Fed-Ex Tracking #:	Condition/Cooler Temp:	Date/Time: 9/24/2013	Date/Time: 9/24/13 1317	Date/Time: 9/25/13 10:00

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 1137250434

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** See box 3A for pH Preservation ☐ **3b** Other:	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓			☐ **19a** Other	

	Box 3A: pH Preservation	Box 9A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Quote #: 91261 PM Instructions: NA

Sample Receiving Associate: Rita Hancock Date: 9/25/13

QA026R25.doc, 071813

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H3I250434*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Can or Tedlar bag prep Time	Baro ID B2 Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Baro ID B2 Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
MB 9/25/13	1640	28.64	M13JM	10234	-11.3	+4.5	MB 9/25/13	x1	28.66	0	+37.9	(A) +34.3						10778
↓	↓	↓	M13JP	09872	-10.2	+3.9												↓

(A) JB 9/27/13 dp = 28.9

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: 140-253-1
Client Project/Site: Racer - Buick City, MI

For:
ARCADIS U.S. Inc
10559 Citation Drive
Suite 100
Brighton, Michigan 48116

Attn: Andrea Krevinghaus

Terry Walker Wasmund

Authorized for release by:
10/28/2013 11:53:20 AM

Terry Walker Wasmund, Project Manager II
(865)291-3000
terry.wasmund@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 5
Client Sample Results 7
Surrogate Summary 11
QC Sample Results 12
QC Association Summary 21
Lab Chronicle 22
Certification Summary 23
Method Summary 25
Sample Summary 26
Chain of Custody 27
Receipt Checklists 28

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	ISTD response or retention time outside acceptable limits
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Job ID: 140-253-1

Laboratory: TestAmerica Knoxville

Narrative

Job Narrative
140-253-1

Comments
No additional comments.

Receipt
The samples were received on 10/10/2013 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO-15: EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Although the tune is flagged outside control for mass 176 at 94.29% in batch 299, the mass met the requirement for TO-15 analysis, which has a limit of 93-101%.

Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 299 exhibited % difference of > 30% for the following analyte(s): Chloromethane and 1,2-dichlorotetrafluoroethane; however the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Method(s) TO-15: Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for these additional analytes is fully established:

• The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
• There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
• The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
• The LCS recovery criteria are set at 20% to 180%.
• A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

No other analytical or quality issues were noted.

Air Toxics
Method(s) TO3: Internal standard responses were outside of acceptance limits for the following sample(s) AOI-09B-SVE-INF (100913) (140-253-1). The sample(s) shows evidence of matrix interference.

No other analytical or quality issues were noted.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Client Sample ID: AOI-09B-SVE-INF (100913) — Lab Sample ID: 140-253-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	260		230	64	ppb v/v	62.41		TO-15	Total/NA
Ethylbenzene	83	J	230	77	ppb v/v	62.41		TO-15	Total/NA
Methylcyclohexane	19000		230	230	ppb v/v	62.41		TO-15	Total/NA
m-Xylene & p-Xylene	650		230	140	ppb v/v	62.41		TO-15	Total/NA
o-Xylene	150	J	230	69	ppb v/v	62.41		TO-15	Total/NA
Toluene	320		230	140	ppb v/v	62.41		TO-15	Total/NA
1,2,4-Trimethylbenzene	180	J	230	71	ppb v/v	62.41		TO-15	Total/NA
1,3,5-Trimethylbenzene	100	J	230	74	ppb v/v	62.41		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	110000	*	1800	1800	ppb v/v	125		TO3	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	820		730	200	ug/m3	62.41		TO-15	Total/NA
Ethylbenzene	360	J	990	340	ug/m3	62.41		TO-15	Total/NA
Methylcyclohexane	76000		910	910	ug/m3	62.41		TO-15	Total/NA
m-Xylene & p-Xylene	2800		990	590	ug/m3	62.41		TO-15	Total/NA
o-Xylene	660	J	990	300	ug/m3	62.41		TO-15	Total/NA
Toluene	1200		860	510	ug/m3	62.41		TO-15	Total/NA
1,2,4-Trimethylbenzene	900	J	1100	350	ug/m3	62.41		TO-15	Total/NA
1,3,5-Trimethylbenzene	510	J	1100	360	ug/m3	62.41		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	470000	*	7200	7200	ug/m3	125		TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF (100913) — Lab Sample ID: 140-253-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.0		0.59	0.17	ppb v/v	5.94		TO-15	Total/NA
Carbon tetrachloride	0.11	J	0.59	0.11	ppb v/v	5.94		TO-15	Total/NA
Dichlorodifluoromethane	0.48	J	0.59	0.20	ppb v/v	5.94		TO-15	Total/NA
Ethylbenzene	0.70		0.59	0.20	ppb v/v	5.94		TO-15	Total/NA
Methylcyclohexane	47		0.59	0.59	ppb v/v	5.94		TO-15	Total/NA
Methylene Chloride	0.48	J	1.5	0.39	ppb v/v	5.94		TO-15	Total/NA
m-Xylene & p-Xylene	6.2		0.59	0.36	ppb v/v	5.94		TO-15	Total/NA
o-Xylene	2.1		0.59	0.18	ppb v/v	5.94		TO-15	Total/NA
Tetrachloroethene	0.92		0.59	0.12	ppb v/v	5.94		TO-15	Total/NA
Toluene	1.8		0.59	0.36	ppb v/v	5.94		TO-15	Total/NA
Trichlorofluoromethane	0.23	J	0.59	0.071	ppb v/v	5.94		TO-15	Total/NA
1,2,4-Trimethylbenzene	4.5		0.59	0.19	ppb v/v	5.94		TO-15	Total/NA
1,3,5-Trimethylbenzene	2.2		0.59	0.19	ppb v/v	5.94		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	620	*	83	83	ppb v/v	5.94		TO3	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.3		1.9	0.53	ug/m3	5.94		TO-15	Total/NA
Carbon tetrachloride	0.71	J	3.7	0.71	ug/m3	5.94		TO-15	Total/NA
Dichlorodifluoromethane	2.4	J	2.9	1.0	ug/m3	5.94		TO-15	Total/NA
Ethylbenzene	3.0		2.6	0.88	ug/m3	5.94		TO-15	Total/NA
Methylcyclohexane	190		2.4	2.4	ug/m3	5.94		TO-15	Total/NA
Methylene Chloride	1.7	J	5.2	1.3	ug/m3	5.94		TO-15	Total/NA
m-Xylene & p-Xylene	27		2.6	1.5	ug/m3	5.94		TO-15	Total/NA
o-Xylene	9.0		2.6	0.79	ug/m3	5.94		TO-15	Total/NA
Tetrachloroethene	6.2		4.0	0.81	ug/m3	5.94		TO-15	Total/NA
Toluene	6.8		2.2	1.3	ug/m3	5.94		TO-15	Total/NA
Trichlorofluoromethane	1.3	J	3.3	0.40	ug/m3	5.94		TO-15	Total/NA
1,2,4-Trimethylbenzene	22		2.9	0.92	ug/m3	5.94		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AOI-09B-AS-OWS-INF (100913) (Continued)

Lab Sample ID: 140-253-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	11		2.9	0.95	ug/m3	5.94		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	2500	*	340	340	ug/m3	5.94		TO3	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Client Sample ID: AOI-09B-SVE-INF (100913)
Date Collected: 10/09/13 10:30
Date Received: 10/10/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-253-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**260**		230	64	ppb v/v			10/16/13 10:53	62.41
Benzyl chloride	ND		450	89	ppb v/v			10/16/13 10:53	62.41
Bromomethane	ND		230	36	ppb v/v			10/16/13 10:53	62.41
Carbon tetrachloride	ND		230	43	ppb v/v			10/16/13 10:53	62.41
Chlorobenzene	ND		230	56	ppb v/v			10/16/13 10:53	62.41
Chloroethane	ND		230	40	ppb v/v			10/16/13 10:53	62.41
Chloroform	ND		230	43	ppb v/v			10/16/13 10:53	62.41
Chloromethane	ND		570	180	ppb v/v			10/16/13 10:53	62.41
cis-1,2-Dichloroethene	ND		230	68	ppb v/v			10/16/13 10:53	62.41
cis-1,3-Dichloropropene	ND		230	84	ppb v/v			10/16/13 10:53	62.41
1,2-Dibromoethane (EDB)	ND		230	50	ppb v/v			10/16/13 10:53	62.41
1,2-Dichlorobenzene	ND		230	79	ppb v/v			10/16/13 10:53	62.41
1,3-Dichlorobenzene	ND		230	74	ppb v/v			10/16/13 10:53	62.41
1,4-Dichlorobenzene	ND		230	73	ppb v/v			10/16/13 10:53	62.41
Dichlorodifluoromethane	ND		230	77	ppb v/v			10/16/13 10:53	62.41
1,1-Dichloroethane	ND		230	30	ppb v/v			10/16/13 10:53	62.41
1,2-Dichloroethane	ND		230	53	ppb v/v			10/16/13 10:53	62.41
1,1-Dichloroethene	ND		230	39	ppb v/v			10/16/13 10:53	62.41
1,2-Dichloropropane	ND		230	59	ppb v/v			10/16/13 10:53	62.41
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		230	36	ppb v/v			10/16/13 10:53	62.41
Ethylbenzene	**83**	**J**	230	77	ppb v/v			10/16/13 10:53	62.41
Hexachlorobutadiene	ND		1100	89	ppb v/v			10/16/13 10:53	62.41
Methylcyclohexane	**19000**		230	230	ppb v/v			10/16/13 10:53	62.41
Methylene Chloride	ND		570	150	ppb v/v			10/16/13 10:53	62.41
m-Xylene & p-Xylene	**650**		230	140	ppb v/v			10/16/13 10:53	62.41
o-Xylene	**150**	**J**	230	69	ppb v/v			10/16/13 10:53	62.41
Styrene	ND		230	66	ppb v/v			10/16/13 10:53	62.41
1,1,2,2-Tetrachloroethane	ND		230	69	ppb v/v			10/16/13 10:53	62.41
Tetrachloroethene	ND		230	45	ppb v/v			10/16/13 10:53	62.41
Toluene	**320**		230	140	ppb v/v			10/16/13 10:53	62.41
trans-1,3-Dichloropropene	ND		230	54	ppb v/v			10/16/13 10:53	62.41
1,2,4-Trichlorobenzene	ND		1100	110	ppb v/v			10/16/13 10:53	62.41
1,1,1-Trichloroethane	ND		230	34	ppb v/v			10/16/13 10:53	62.41
1,1,2-Trichloroethane	ND		230	61	ppb v/v			10/16/13 10:53	62.41
Trichloroethene	ND		230	41	ppb v/v			10/16/13 10:53	62.41
Trichlorofluoromethane	ND		230	27	ppb v/v			10/16/13 10:53	62.41
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		230	35	ppb v/v			10/16/13 10:53	62.41
1,2,4-Trimethylbenzene	**180**	**J**	230	71	ppb v/v			10/16/13 10:53	62.41
1,3,5-Trimethylbenzene	**100**	**J**	230	74	ppb v/v			10/16/13 10:53	62.41
Vinyl chloride	ND		230	81	ppb v/v			10/16/13 10:53	62.41

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**820**		730	200	ug/m3			10/16/13 10:53	62.41
Benzyl chloride	ND		2300	460	ug/m3			10/16/13 10:53	62.41
Bromomethane	ND		880	140	ug/m3			10/16/13 10:53	62.41
Carbon tetrachloride	ND		1400	270	ug/m3			10/16/13 10:53	62.41
Chlorobenzene	ND		1000	260	ug/m3			10/16/13 10:53	62.41
Chloroethane	ND		600	100	ug/m3			10/16/13 10:53	62.41
Chloroform	ND		1100	210	ug/m3			10/16/13 10:53	62.41

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Client Sample ID: AOI-09B-SVE-INF (100913)
Date Collected: 10/09/13 10:30
Date Received: 10/10/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-253-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1200	370	ug/m3			10/16/13 10:53	62.41
cis-1,2-Dichloroethene	ND		900	270	ug/m3			10/16/13 10:53	62.41
cis-1,3-Dichloropropene	ND		1000	380	ug/m3			10/16/13 10:53	62.41
1,2-Dibromoethane (EDB)	ND		1700	380	ug/m3			10/16/13 10:53	62.41
1,2-Dichlorobenzene	ND		1400	480	ug/m3			10/16/13 10:53	62.41
1,3-Dichlorobenzene	ND		1400	440	ug/m3			10/16/13 10:53	62.41
1,4-Dichlorobenzene	ND		1400	440	ug/m3			10/16/13 10:53	62.41
Dichlorodifluoromethane	ND		1100	380	ug/m3			10/16/13 10:53	62.41
1,1-Dichloroethane	ND		920	120	ug/m3			10/16/13 10:53	62.41
1,2-Dichloroethane	ND		920	220	ug/m3			10/16/13 10:53	62.41
1,1-Dichloroethene	ND		900	150	ug/m3			10/16/13 10:53	62.41
1,2-Dichloropropane	ND		1000	270	ug/m3			10/16/13 10:53	62.41
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1600	250	ug/m3			10/16/13 10:53	62.41
Ethylbenzene	**360**	**J**	990	340	ug/m3			10/16/13 10:53	62.41
Hexachlorobutadiene	ND		12000	940	ug/m3			10/16/13 10:53	62.41
Methylcyclohexane	**76000**		910	910	ug/m3			10/16/13 10:53	62.41
Methylene Chloride	ND		2000	510	ug/m3			10/16/13 10:53	62.41
m-Xylene & p-Xylene	**2800**		990	590	ug/m3			10/16/13 10:53	62.41
o-Xylene	**660**	**J**	990	300	ug/m3			10/16/13 10:53	62.41
Styrene	ND		970	280	ug/m3			10/16/13 10:53	62.41
1,1,2,2-Tetrachloroethane	ND		1600	480	ug/m3			10/16/13 10:53	62.41
Tetrachloroethene	ND		1500	310	ug/m3			10/16/13 10:53	62.41
Toluene	**1200**		860	510	ug/m3			10/16/13 10:53	62.41
trans-1,3-Dichloropropene	ND		1000	250	ug/m3			10/16/13 10:53	62.41
1,2,4-Trichlorobenzene	ND		8400	830	ug/m3			10/16/13 10:53	62.41
1,1,1-Trichloroethane	ND		1200	190	ug/m3			10/16/13 10:53	62.41
1,1,2-Trichloroethane	ND		1200	330	ug/m3			10/16/13 10:53	62.41
Trichloroethene	ND		1200	220	ug/m3			10/16/13 10:53	62.41
Trichlorofluoromethane	ND		1300	150	ug/m3			10/16/13 10:53	62.41
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1700	270	ug/m3			10/16/13 10:53	62.41
1,2,4-Trimethylbenzene	**900**	**J**	1100	350	ug/m3			10/16/13 10:53	62.41
1,3,5-Trimethylbenzene	**510**	**J**	1100	360	ug/m3			10/16/13 10:53	62.41
Vinyl chloride	ND		580	210	ug/m3			10/16/13 10:53	62.41

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*10/16/13 10:53*	*62.41*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**110000**	*****	1800	1800	ppb v/v			10/24/13 14:05	125

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**470000**	*****	7200	7200	ug/m3			10/24/13 14:05	125

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Client Sample ID: AOI-09B-AS-OWS-INF (100913)
Date Collected: 10/09/13 10:45
Date Received: 10/10/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-253-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.0**		0.59	0.17	ppb v/v			10/17/13 02:03	5.94
Benzyl chloride	ND		1.2	0.23	ppb v/v			10/17/13 02:03	5.94
Bromomethane	ND		0.59	0.095	ppb v/v			10/17/13 02:03	5.94
Carbon tetrachloride	**0.11**	**J**	0.59	0.11	ppb v/v			10/17/13 02:03	5.94
Chlorobenzene	ND		0.59	0.15	ppb v/v			10/17/13 02:03	5.94
Chloroethane	ND		0.59	0.10	ppb v/v			10/17/13 02:03	5.94
Chloroform	ND		0.59	0.11	ppb v/v			10/17/13 02:03	5.94
Chloromethane	ND		1.5	0.48	ppb v/v			10/17/13 02:03	5.94
cis-1,2-Dichloroethene	ND		0.59	0.18	ppb v/v			10/17/13 02:03	5.94
cis-1,3-Dichloropropene	ND		0.59	0.22	ppb v/v			10/17/13 02:03	5.94
1,2-Dibromoethane (EDB)	ND		0.59	0.13	ppb v/v			10/17/13 02:03	5.94
1,2-Dichlorobenzene	ND		0.59	0.21	ppb v/v			10/17/13 02:03	5.94
1,3-Dichlorobenzene	ND		0.59	0.19	ppb v/v			10/17/13 02:03	5.94
1,4-Dichlorobenzene	ND		0.59	0.19	ppb v/v			10/17/13 02:03	5.94
Dichlorodifluoromethane	**0.48**	**J**	0.59	0.20	ppb v/v			10/17/13 02:03	5.94
1,1-Dichloroethane	ND		0.59	0.077	ppb v/v			10/17/13 02:03	5.94
1,2-Dichloroethane	ND		0.59	0.14	ppb v/v			10/17/13 02:03	5.94
1,1-Dichloroethene	ND		0.59	0.10	ppb v/v			10/17/13 02:03	5.94
1,2-Dichloropropane	ND		0.59	0.15	ppb v/v			10/17/13 02:03	5.94
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.59	0.095	ppb v/v			10/17/13 02:03	5.94
Ethylbenzene	**0.70**		0.59	0.20	ppb v/v			10/17/13 02:03	5.94
Hexachlorobutadiene	ND		3.0	0.23	ppb v/v			10/17/13 02:03	5.94
Methylcyclohexane	**47**		0.59	0.59	ppb v/v			10/17/13 02:03	5.94
Methylene Chloride	**0.48**	**J**	1.5	0.39	ppb v/v			10/17/13 02:03	5.94
m-Xylene & p-Xylene	**6.2**		0.59	0.36	ppb v/v			10/17/13 02:03	5.94
o-Xylene	**2.1**		0.59	0.18	ppb v/v			10/17/13 02:03	5.94
Styrene	ND		0.59	0.17	ppb v/v			10/17/13 02:03	5.94
1,1,2,2-Tetrachloroethane	ND		0.59	0.18	ppb v/v			10/17/13 02:03	5.94
Tetrachloroethene	**0.92**		0.59	0.12	ppb v/v			10/17/13 02:03	5.94
Toluene	**1.8**		0.59	0.36	ppb v/v			10/17/13 02:03	5.94
trans-1,3-Dichloropropene	ND		0.59	0.14	ppb v/v			10/17/13 02:03	5.94
1,2,4-Trichlorobenzene	ND		3.0	0.29	ppb v/v			10/17/13 02:03	5.94
1,1,1-Trichloroethane	ND		0.59	0.089	ppb v/v			10/17/13 02:03	5.94
1,1,2-Trichloroethane	ND		0.59	0.16	ppb v/v			10/17/13 02:03	5.94
Trichloroethene	ND		0.59	0.11	ppb v/v			10/17/13 02:03	5.94
Trichlorofluoromethane	**0.23**	**J**	0.59	0.071	ppb v/v			10/17/13 02:03	5.94
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.59	0.092	ppb v/v			10/17/13 02:03	5.94
1,2,4-Trimethylbenzene	**4.5**		0.59	0.19	ppb v/v			10/17/13 02:03	5.94
1,3,5-Trimethylbenzene	**2.2**		0.59	0.19	ppb v/v			10/17/13 02:03	5.94
Vinyl chloride	ND		0.59	0.21	ppb v/v			10/17/13 02:03	5.94

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.3**		1.9	0.53	ug/m3			10/17/13 02:03	5.94
Benzyl chloride	ND		6.2	1.2	ug/m3			10/17/13 02:03	5.94
Bromomethane	ND		2.3	0.37	ug/m3			10/17/13 02:03	5.94
Carbon tetrachloride	**0.71**	**J**	3.7	0.71	ug/m3			10/17/13 02:03	5.94
Chlorobenzene	ND		2.7	0.67	ug/m3			10/17/13 02:03	5.94
Chloroethane	ND		1.6	0.27	ug/m3			10/17/13 02:03	5.94
Chloroform	ND		2.9	0.55	ug/m3			10/17/13 02:03	5.94

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Client Sample ID: AOI-09B-AS-OWS-INF (100913)
Date Collected: 10/09/13 10:45
Date Received: 10/10/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-253-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		3.1	0.98	ug/m3			10/17/13 02:03	5.94
cis-1,2-Dichloroethene	ND		2.4	0.71	ug/m3			10/17/13 02:03	5.94
cis-1,3-Dichloropropene	ND		2.7	1.0	ug/m3			10/17/13 02:03	5.94
1,2-Dibromoethane (EDB)	ND		4.6	1.0	ug/m3			10/17/13 02:03	5.94
1,2-Dichlorobenzene	ND		3.6	1.2	ug/m3			10/17/13 02:03	5.94
1,3-Dichlorobenzene	ND		3.6	1.2	ug/m3			10/17/13 02:03	5.94
1,4-Dichlorobenzene	ND		3.6	1.1	ug/m3			10/17/13 02:03	5.94
Dichlorodifluoromethane	**2.4**	**J**	2.9	1.0	ug/m3			10/17/13 02:03	5.94
1,1-Dichloroethane	ND		2.4	0.31	ug/m3			10/17/13 02:03	5.94
1,2-Dichloroethane	ND		2.4	0.56	ug/m3			10/17/13 02:03	5.94
1,1-Dichloroethene	ND		2.4	0.40	ug/m3			10/17/13 02:03	5.94
1,2-Dichloropropane	ND		2.7	0.71	ug/m3			10/17/13 02:03	5.94
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		4.2	0.66	ug/m3			10/17/13 02:03	5.94
Ethylbenzene	**3.0**		2.6	0.88	ug/m3			10/17/13 02:03	5.94
Hexachlorobutadiene	ND		32	2.5	ug/m3			10/17/13 02:03	5.94
Methylcyclohexane	**190**		2.4	2.4	ug/m3			10/17/13 02:03	5.94
Methylene Chloride	**1.7**	**J**	5.2	1.3	ug/m3			10/17/13 02:03	5.94
m-Xylene & p-Xylene	**27**		2.6	1.5	ug/m3			10/17/13 02:03	5.94
o-Xylene	**9.0**		2.6	0.79	ug/m3			10/17/13 02:03	5.94
Styrene	ND		2.5	0.73	ug/m3			10/17/13 02:03	5.94
1,1,2,2-Tetrachloroethane	ND		4.1	1.2	ug/m3			10/17/13 02:03	5.94
Tetrachloroethene	**6.2**		4.0	0.81	ug/m3			10/17/13 02:03	5.94
Toluene	**6.8**		2.2	1.3	ug/m3			10/17/13 02:03	5.94
trans-1,3-Dichloropropene	ND		2.7	0.65	ug/m3			10/17/13 02:03	5.94
1,2,4-Trichlorobenzene	ND		22	2.2	ug/m3			10/17/13 02:03	5.94
1,1,1-Trichloroethane	ND		3.2	0.49	ug/m3			10/17/13 02:03	5.94
1,1,2-Trichloroethane	ND		3.2	0.88	ug/m3			10/17/13 02:03	5.94
Trichloroethene	ND		3.2	0.57	ug/m3			10/17/13 02:03	5.94
Trichlorofluoromethane	**1.3**	**J**	3.3	0.40	ug/m3			10/17/13 02:03	5.94
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	0.71	ug/m3			10/17/13 02:03	5.94
1,2,4-Trimethylbenzene	**22**		2.9	0.92	ug/m3			10/17/13 02:03	5.94
1,3,5-Trimethylbenzene	**11**		2.9	0.95	ug/m3			10/17/13 02:03	5.94
Vinyl chloride	ND		1.5	0.54	ug/m3			10/17/13 02:03	5.94

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/17/13 02:03*	*5.94*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**620**	*	83	83	ppb v/v			10/24/13 14:52	5.94

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**2500**	*	340	340	ug/m3			10/24/13 14:52	5.94

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB								
Lab Sample ID	Client Sample ID	(60-140)								
140-253-1	AOI-09B-SVE-INF (100913)	97								
140-253-2	AOI-09B-AS-OWS-INF (100913)	96								
LCS 140-299/1002	Lab Control Sample	99								
LCS 140-301/1002	Lab Control Sample	105								
MB 140-299/3	Method Blank	98								
MB 140-301/3	Method Blank	100								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-299/3
Matrix: Air
Analysis Batch: 299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.056	ppb v/v			10/15/13 16:52	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			10/15/13 16:52	1
Bromomethane	ND		0.20	0.032	ppb v/v			10/15/13 16:52	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			10/15/13 16:52	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			10/15/13 16:52	1
Chloroethane	ND		0.20	0.035	ppb v/v			10/15/13 16:52	1
Chloroform	ND		0.20	0.038	ppb v/v			10/15/13 16:52	1
Chloromethane	ND		0.50	0.16	ppb v/v			10/15/13 16:52	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			10/15/13 16:52	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			10/15/13 16:52	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			10/15/13 16:52	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			10/15/13 16:52	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			10/15/13 16:52	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			10/15/13 16:52	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			10/15/13 16:52	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			10/15/13 16:52	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			10/15/13 16:52	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			10/15/13 16:52	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			10/15/13 16:52	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			10/15/13 16:52	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			10/15/13 16:52	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			10/15/13 16:52	1
Methylcyclohexane	ND		0.20	0.20	ppb v/v			10/15/13 16:52	1
Methylene Chloride	ND		0.50	0.13	ppb v/v			10/15/13 16:52	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			10/15/13 16:52	1
o-Xylene	ND		0.20	0.061	ppb v/v			10/15/13 16:52	1
Styrene	ND		0.20	0.058	ppb v/v			10/15/13 16:52	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			10/15/13 16:52	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			10/15/13 16:52	1
Toluene	ND		0.20	0.12	ppb v/v			10/15/13 16:52	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			10/15/13 16:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			10/15/13 16:52	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			10/15/13 16:52	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			10/15/13 16:52	1
Trichloroethene	ND		0.20	0.036	ppb v/v			10/15/13 16:52	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			10/15/13 16:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			10/15/13 16:52	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			10/15/13 16:52	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			10/15/13 16:52	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			10/15/13 16:52	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64	0.18	ug/m3			10/15/13 16:52	1
Benzyl chloride	ND		2.1	0.40	ug/m3			10/15/13 16:52	1
Bromomethane	ND		0.78	0.12	ug/m3			10/15/13 16:52	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			10/15/13 16:52	1
Chlorobenzene	ND		0.92	0.23	ug/m3			10/15/13 16:52	1
Chloroethane	ND		0.53	0.092	ug/m3			10/15/13 16:52	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-299/3
Matrix: Air
Analysis Batch: 299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.98	0.19	ug/m3			10/15/13 16:52	1
Chloromethane	ND		1.0	0.33	ug/m3			10/15/13 16:52	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			10/15/13 16:52	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			10/15/13 16:52	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			10/15/13 16:52	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			10/15/13 16:52	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			10/15/13 16:52	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			10/15/13 16:52	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			10/15/13 16:52	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			10/15/13 16:52	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			10/15/13 16:52	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			10/15/13 16:52	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			10/15/13 16:52	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			10/15/13 16:52	1
Ethylbenzene	ND		0.87	0.30	ug/m3			10/15/13 16:52	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			10/15/13 16:52	1
Methylcyclohexane	ND		0.80	0.80	ug/m3			10/15/13 16:52	1
Methylene Chloride	ND		1.7	0.45	ug/m3			10/15/13 16:52	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			10/15/13 16:52	1
o-Xylene	ND		0.87	0.26	ug/m3			10/15/13 16:52	1
Styrene	ND		0.85	0.25	ug/m3			10/15/13 16:52	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			10/15/13 16:52	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			10/15/13 16:52	1
Toluene	ND		0.75	0.45	ug/m3			10/15/13 16:52	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			10/15/13 16:52	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			10/15/13 16:52	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			10/15/13 16:52	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			10/15/13 16:52	1
Trichloroethene	ND		1.1	0.19	ug/m3			10/15/13 16:52	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			10/15/13 16:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			10/15/13 16:52	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			10/15/13 16:52	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			10/15/13 16:52	1
Vinyl chloride	ND		0.51	0.18	ug/m3			10/15/13 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*10/15/13 16:52*	*1*

Lab Sample ID: LCS 140-299/1002
Matrix: Air
Analysis Batch: 299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	2.15		ppb v/v		107	70 - 130
Benzyl chloride	2.00	2.46		ppb v/v		123	70 - 130
Bromomethane	2.00	1.52		ppb v/v		76	70 - 130
Carbon tetrachloride	2.00	1.87		ppb v/v		94	70 - 130
Chlorobenzene	2.00	2.05		ppb v/v		103	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-299/1002
Matrix: Air
Analysis Batch: 299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	2.00	1.43		ppb v/v		72	70 - 130
Chloroform	2.00	1.98		ppb v/v		99	70 - 130
Chloromethane	2.00	1.38		ppb v/v		69	60 - 140
cis-1,2-Dichloroethene	2.00	2.16		ppb v/v		108	70 - 130
cis-1,3-Dichloropropene	2.00	2.22		ppb v/v		111	70 - 130
1,2-Dibromoethane (EDB)	2.00	2.08		ppb v/v		104	70 - 130
1,2-Dichlorobenzene	2.00	2.03		ppb v/v		101	70 - 130
1,3-Dichlorobenzene	2.00	1.99		ppb v/v		99	70 - 130
1,4-Dichlorobenzene	2.00	2.03		ppb v/v		101	70 - 130
Dichlorodifluoromethane	2.00	1.92		ppb v/v		96	60 - 140
1,1-Dichloroethane	2.00	2.22		ppb v/v		111	70 - 130
1,2-Dichloroethane	2.00	1.88		ppb v/v		94	70 - 130
1,1-Dichloroethene	2.00	2.01		ppb v/v		100	70 - 130
1,2-Dichloropropane	2.00	2.29		ppb v/v		115	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	1.37		ppb v/v		69	60 - 140
Ethylbenzene	2.00	2.34		ppb v/v		117	70 - 130
Hexachlorobutadiene	2.00	1.77		ppb v/v		89	60 - 140
Methylcyclohexane	2.00	2.15		ppb v/v		107	20 - 180
Methylene Chloride	2.00	2.06		ppb v/v		103	70 - 130
m-Xylene & p-Xylene	4.00	4.68		ppb v/v		117	70 - 130
o-Xylene	2.00	2.35		ppb v/v		118	70 - 130
Styrene	2.00	2.48		ppb v/v		124	70 - 130
1,1,2,2-Tetrachloroethane	2.00	2.39		ppb v/v		119	70 - 130
Tetrachloroethene	2.00	1.90		ppb v/v		95	70 - 130
Toluene	2.00	2.22		ppb v/v		111	70 - 130
trans-1,3-Dichloropropene	2.00	2.27		ppb v/v		114	70 - 130
1,2,4-Trichlorobenzene	2.00	1.71		ppb v/v		85	60 - 140
1,1,1-Trichloroethane	2.00	1.91		ppb v/v		96	70 - 130
1,1,2-Trichloroethane	2.00	2.21		ppb v/v		110	70 - 130
Trichloroethene	2.00	1.76		ppb v/v		88	70 - 130
Trichlorofluoromethane	2.00	1.78		ppb v/v		89	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	1.95		ppb v/v		98	70 - 130
1,2,4-Trimethylbenzene	2.00	2.35		ppb v/v		118	70 - 130
1,3,5-Trimethylbenzene	2.00	2.37		ppb v/v		118	70 - 130
Vinyl chloride	2.00	1.48		ppb v/v		74	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	6.87		ug/m3		107	70 - 130
Benzyl chloride	10	12.7		ug/m3		123	70 - 130
Bromomethane	7.8	5.91		ug/m3		76	70 - 130
Carbon tetrachloride	13	11.8		ug/m3		94	70 - 130
Chlorobenzene	9.2	9.44		ug/m3		103	70 - 130
Chloroethane	5.3	3.79		ug/m3		72	70 - 130
Chloroform	9.8	9.65		ug/m3		99	70 - 130
Chloromethane	4.1	2.84		ug/m3		69	60 - 140
cis-1,2-Dichloroethene	7.9	8.56		ug/m3		108	70 - 130
cis-1,3-Dichloropropene	9.1	10.1		ug/m3		111	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-299/1002
Matrix: Air
Analysis Batch: 299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	15	15.9		ug/m3		104	70 - 130
1,2-Dichlorobenzene	12	12.2		ug/m3		101	70 - 130
1,3-Dichlorobenzene	12	12.0		ug/m3		99	70 - 130
1,4-Dichlorobenzene	12	12.2		ug/m3		101	70 - 130
Dichlorodifluoromethane	9.9	9.51		ug/m3		96	60 - 140
1,1-Dichloroethane	8.1	8.98		ug/m3		111	70 - 130
1,2-Dichloroethane	8.1	7.63		ug/m3		94	70 - 130
1,1-Dichloroethene	7.9	7.95		ug/m3		100	70 - 130
1,2-Dichloropropane	9.2	10.6		ug/m3		115	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	9.61		ug/m3		69	60 - 140
Ethylbenzene	8.7	10.2		ug/m3		117	70 - 130
Hexachlorobutadiene	21	18.9		ug/m3		89	60 - 140
Methylcyclohexane	8.0	8.63		ug/m3		107	20 - 180
Methylene Chloride	6.9	7.16		ug/m3		103	70 - 130
m-Xylene & p-Xylene	17	20.3		ug/m3		117	70 - 130
o-Xylene	8.7	10.2		ug/m3		118	70 - 130
Styrene	8.5	10.5		ug/m3		124	70 - 130
1,1,2,2-Tetrachloroethane	14	16.4		ug/m3		119	70 - 130
Tetrachloroethene	14	12.9		ug/m3		95	70 - 130
Toluene	7.5	8.37		ug/m3		111	70 - 130
trans-1,3-Dichloropropene	9.1	10.3		ug/m3		114	70 - 130
1,2,4-Trichlorobenzene	15	12.7		ug/m3		85	60 - 140
1,1,1-Trichloroethane	11	10.4		ug/m3		96	70 - 130
1,1,2-Trichloroethane	11	12.0		ug/m3		110	70 - 130
Trichloroethene	11	9.45		ug/m3		88	70 - 130
Trichlorofluoromethane	11	9.99		ug/m3		89	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	15	15.0		ug/m3		98	70 - 130
1,2,4-Trimethylbenzene	9.8	11.6		ug/m3		118	70 - 130
1,3,5-Trimethylbenzene	9.8	11.6		ug/m3		118	70 - 130
Vinyl chloride	5.1	3.78		ug/m3		74	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*

Lab Sample ID: MB 140-301/3
Matrix: Air
Analysis Batch: 301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.056	ppb v/v			10/16/13 16:03	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			10/16/13 16:03	1
Bromomethane	ND		0.20	0.032	ppb v/v			10/16/13 16:03	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			10/16/13 16:03	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			10/16/13 16:03	1
Chloroethane	ND		0.20	0.035	ppb v/v			10/16/13 16:03	1
Chloroform	ND		0.20	0.038	ppb v/v			10/16/13 16:03	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-301/3
Matrix: Air
Analysis Batch: 301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		0.50	0.16	ppb v/v			10/16/13 16:03	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			10/16/13 16:03	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			10/16/13 16:03	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			10/16/13 16:03	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			10/16/13 16:03	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			10/16/13 16:03	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			10/16/13 16:03	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			10/16/13 16:03	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			10/16/13 16:03	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			10/16/13 16:03	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			10/16/13 16:03	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			10/16/13 16:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			10/16/13 16:03	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			10/16/13 16:03	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			10/16/13 16:03	1
Methylcyclohexane	ND		0.20	0.20	ppb v/v			10/16/13 16:03	1
Methylene Chloride	ND		0.50	0.13	ppb v/v			10/16/13 16:03	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			10/16/13 16:03	1
o-Xylene	ND		0.20	0.061	ppb v/v			10/16/13 16:03	1
Styrene	ND		0.20	0.058	ppb v/v			10/16/13 16:03	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			10/16/13 16:03	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			10/16/13 16:03	1
Toluene	ND		0.20	0.12	ppb v/v			10/16/13 16:03	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			10/16/13 16:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			10/16/13 16:03	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			10/16/13 16:03	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			10/16/13 16:03	1
Trichloroethene	ND		0.20	0.036	ppb v/v			10/16/13 16:03	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			10/16/13 16:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			10/16/13 16:03	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			10/16/13 16:03	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			10/16/13 16:03	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			10/16/13 16:03	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64	0.18	ug/m3			10/16/13 16:03	1
Benzyl chloride	ND		2.1	0.40	ug/m3			10/16/13 16:03	1
Bromomethane	ND		0.78	0.12	ug/m3			10/16/13 16:03	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			10/16/13 16:03	1
Chlorobenzene	ND		0.92	0.23	ug/m3			10/16/13 16:03	1
Chloroethane	ND		0.53	0.092	ug/m3			10/16/13 16:03	1
Chloroform	ND		0.98	0.19	ug/m3			10/16/13 16:03	1
Chloromethane	ND		1.0	0.33	ug/m3			10/16/13 16:03	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			10/16/13 16:03	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			10/16/13 16:03	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			10/16/13 16:03	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			10/16/13 16:03	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			10/16/13 16:03	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-301/3
Matrix: Air
Analysis Batch: 301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			10/16/13 16:03	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			10/16/13 16:03	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			10/16/13 16:03	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			10/16/13 16:03	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			10/16/13 16:03	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			10/16/13 16:03	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			10/16/13 16:03	1
Ethylbenzene	ND		0.87	0.30	ug/m3			10/16/13 16:03	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			10/16/13 16:03	1
Methylcyclohexane	ND		0.80	0.80	ug/m3			10/16/13 16:03	1
Methylene Chloride	ND		1.7	0.45	ug/m3			10/16/13 16:03	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			10/16/13 16:03	1
o-Xylene	ND		0.87	0.26	ug/m3			10/16/13 16:03	1
Styrene	ND		0.85	0.25	ug/m3			10/16/13 16:03	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			10/16/13 16:03	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			10/16/13 16:03	1
Toluene	ND		0.75	0.45	ug/m3			10/16/13 16:03	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			10/16/13 16:03	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			10/16/13 16:03	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			10/16/13 16:03	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			10/16/13 16:03	1
Trichloroethene	ND		1.1	0.19	ug/m3			10/16/13 16:03	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			10/16/13 16:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			10/16/13 16:03	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			10/16/13 16:03	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			10/16/13 16:03	1
Vinyl chloride	ND		0.51	0.18	ug/m3			10/16/13 16:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*10/16/13 16:03*	*1*

Lab Sample ID: LCS 140-301/1002
Matrix: Air
Analysis Batch: 301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.75		ppb v/v		87	70 - 130
Benzyl chloride	2.00	2.23		ppb v/v		111	70 - 130
Bromomethane	2.00	2.48		ppb v/v		124	70 - 130
Carbon tetrachloride	2.00	2.52		ppb v/v		126	70 - 130
Chlorobenzene	2.00	1.98		ppb v/v		99	70 - 130
Chloroethane	2.00	2.33		ppb v/v		117	70 - 130
Chloroform	2.00	2.01		ppb v/v		101	70 - 130
Chloromethane	2.00	2.41		ppb v/v		120	60 - 140
cis-1,2-Dichloroethene	2.00	1.99		ppb v/v		99	70 - 130
cis-1,3-Dichloropropene	2.00	1.93		ppb v/v		96	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.96		ppb v/v		98	70 - 130
1,2-Dichlorobenzene	2.00	2.11		ppb v/v		105	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-301/1002
Matrix: Air
Analysis Batch: 301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	2.00	2.14		ppb v/v		107	70 - 130
1,4-Dichlorobenzene	2.00	2.18		ppb v/v		109	70 - 130
Dichlorodifluoromethane	2.00	2.42		ppb v/v		121	60 - 140
1,1-Dichloroethane	2.00	1.80		ppb v/v		90	70 - 130
1,2-Dichloroethane	2.00	2.02		ppb v/v		101	70 - 130
1,1-Dichloroethene	2.00	2.10		ppb v/v		105	70 - 130
1,2-Dichloropropane	2.00	1.62		ppb v/v		81	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.40		ppb v/v		120	60 - 140
Ethylbenzene	2.00	1.69		ppb v/v		84	70 - 130
Hexachlorobutadiene	2.00	1.99		ppb v/v		100	60 - 140
Methylcyclohexane	2.00	2.03		ppb v/v		101	20 - 180
Methylene Chloride	2.00	1.88		ppb v/v		94	70 - 130
m-Xylene & p-Xylene	4.00	3.49		ppb v/v		87	70 - 130
o-Xylene	2.00	1.72		ppb v/v		86	70 - 130
Styrene	2.00	1.88		ppb v/v		94	70 - 130
1,1,2,2-Tetrachloroethane	2.00	1.76		ppb v/v		88	70 - 130
Tetrachloroethene	2.00	2.19		ppb v/v		110	70 - 130
Toluene	2.00	1.70		ppb v/v		85	70 - 130
trans-1,3-Dichloropropene	2.00	1.87		ppb v/v		94	70 - 130
1,2,4-Trichlorobenzene	2.00	1.87		ppb v/v		94	60 - 140
1,1,1-Trichloroethane	2.00	2.16		ppb v/v		108	70 - 130
1,1,2-Trichloroethane	2.00	1.71		ppb v/v		85	70 - 130
Trichloroethene	2.00	2.30		ppb v/v		115	70 - 130
Trichlorofluoromethane	2.00	2.45		ppb v/v		122	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.09		ppb v/v		105	70 - 130
1,2,4-Trimethylbenzene	2.00	2.03		ppb v/v		101	70 - 130
1,3,5-Trimethylbenzene	2.00	1.98		ppb v/v		99	70 - 130
Vinyl chloride	2.00	2.50		ppb v/v		125	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	5.58		ug/m3		87	70 - 130
Benzyl chloride	10	11.5		ug/m3		111	70 - 130
Bromomethane	7.8	9.62		ug/m3		124	70 - 130
Carbon tetrachloride	13	15.8		ug/m3		126	70 - 130
Chlorobenzene	9.2	9.09		ug/m3		99	70 - 130
Chloroethane	5.3	6.15		ug/m3		117	70 - 130
Chloroform	9.8	9.84		ug/m3		101	70 - 130
Chloromethane	4.1	4.97		ug/m3		120	60 - 140
cis-1,2-Dichloroethene	7.9	7.88		ug/m3		99	70 - 130
cis-1,3-Dichloropropene	9.1	8.75		ug/m3		96	70 - 130
1,2-Dibromoethane (EDB)	15	15.0		ug/m3		98	70 - 130
1,2-Dichlorobenzene	12	12.7		ug/m3		105	70 - 130
1,3-Dichlorobenzene	12	12.8		ug/m3		107	70 - 130
1,4-Dichlorobenzene	12	13.1		ug/m3		109	70 - 130
Dichlorodifluoromethane	9.9	12.0		ug/m3		121	60 - 140
1,1-Dichloroethane	8.1	7.29		ug/m3		90	70 - 130
1,2-Dichloroethane	8.1	8.19		ug/m3		101	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-301/1002
Matrix: Air
Analysis Batch: 301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	7.9	8.31		ug/m3		105	70 - 130
1,2-Dichloropropane	9.2	7.46		ug/m3		81	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	16.8		ug/m3		120	60 - 140
Ethylbenzene	8.7	7.34		ug/m3		84	70 - 130
Hexachlorobutadiene	21	21.3		ug/m3		100	60 - 140
Methylcyclohexane	8.0	8.15		ug/m3		101	20 - 180
Methylene Chloride	6.9	6.53		ug/m3		94	70 - 130
m-Xylene & p-Xylene	17	15.2		ug/m3		87	70 - 130
o-Xylene	8.7	7.46		ug/m3		86	70 - 130
Styrene	8.5	8.00		ug/m3		94	70 - 130
1,1,2,2-Tetrachloroethane	14	12.1		ug/m3		88	70 - 130
Tetrachloroethene	14	14.9		ug/m3		110	70 - 130
Toluene	7.5	6.42		ug/m3		85	70 - 130
trans-1,3-Dichloropropene	9.1	8.51		ug/m3		94	70 - 130
1,2,4-Trichlorobenzene	15	13.9		ug/m3		94	60 - 140
1,1,1-Trichloroethane	11	11.8		ug/m3		108	70 - 130
1,1,2-Trichloroethane	11	9.33		ug/m3		85	70 - 130
Trichloroethene	11	12.3		ug/m3		115	70 - 130
Trichlorofluoromethane	11	13.7		ug/m3		122	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	15	16.0		ug/m3		105	70 - 130
1,2,4-Trimethylbenzene	9.8	9.98		ug/m3		101	70 - 130
1,3,5-Trimethylbenzene	9.8	9.73		ug/m3		99	70 - 130
Vinyl chloride	5.1	6.39		ug/m3		125	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-63255/3
Matrix: Air
Analysis Batch: 63255

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	ND		14	14	ppb v/v			10/24/13 13:18	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	ND		57	57	ug/m3			10/24/13 13:18	1

Lab Sample ID: LCS 200-63255/2
Matrix: Air
Analysis Batch: 63255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	10.0	ND		ppb v/v		100	70 - 130

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: LCS 200-63255/2
Matrix: Air
Analysis Batch: 63255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	41	ND		ug/m3		100	70 - 130

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Air - GC/MS VOA

Analysis Batch: 299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-253-1	AOI-09B-SVE-INF (100913)	Total/NA	Air	TO-15	
LCS 140-299/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-299/3	Method Blank	Total/NA	Air	TO-15	

Analysis Batch: 301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-253-2	AOI-09B-AS-OWS-INF (100913)	Total/NA	Air	TO-15	
LCS 140-301/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-301/3	Method Blank	Total/NA	Air	TO-15	

Analysis Batch: 63255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-253-1	AOI-09B-SVE-INF (100913)	Total/NA	Air	TO3	
140-253-2	AOI-09B-AS-OWS-INF (100913)	Total/NA	Air	TO3	
LCS 200-63255/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-63255/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Client Sample ID: AOI-09B-SVE-INF (100913)

Lab Sample ID: 140-253-1

Date Collected: 10/09/13 10:30

Matrix: Air

Date Received: 10/10/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		62.41	11 mL	500 mL	299	10/16/13 10:53	AFB	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO3		125	100 mL	200 mL	63255	10/24/13 14:05	PAD	TAL BUR
	Instrument ID: G.i									

Client Sample ID: AOI-09B-AS-OWS-INF (100913)

Lab Sample ID: 140-253-2

Date Collected: 10/09/13 10:45

Matrix: Air

Date Received: 10/10/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		5.94	400 mL	500 mL	301	10/17/13 02:03	AFB	TAL KNX
	Instrument ID: MG									
Total/NA	Analysis	TO3		5.94	200 mL	200 mL	63255	10/24/13 14:52	PAD	TAL BUR
	Instrument ID: G.i									

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-17-14
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-15
Florida	NELAP	4	E87177	06-30-14
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-13
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	LA110001	12-31-13
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	04-13-14
Nevada	State Program	9	TN00009	07-31-14
New Jersey	NELAP	2	TN001	06-30-14
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-13
North Carolina DHHS	State Program	4	21705	07-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-31-14
Pennsylvania	NELAP	3	68-00576	12-31-13
South Carolina	State Program	4	84001	06-30-14
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-14
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-14
Virginia	NELAP	3	460176	09-14-14
Virginia	State Program	3	165	06-30-14
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-14

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-13 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-14
L-A-B	DoD ELAP		L2336	10-26-13 *
Louisiana	NELAP	6	176292	06-30-14
Maine	State Program	1	VT00008	04-17-15
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-14
New York	NELAP	2	10391	04-01-14

* Expired certification is currently pending renewal and is considered valid.

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00489	04-30-14
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-253-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-253-1	AOI-09B-SVE-INF (100913)	Air	10/09/13 10:30	10/10/13 10:00
140-253-2	AOI-09B-AS-OWS-INF (100913)	Air	10/09/13 10:45	10/10/13 10:00

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC100913.1

Send Results To:

Contact & Company Name: Tony Maffeo	Telephone: 248.994.2240
Address: 28550 Cabot Dr. Suite 500	Site Contact: Trevor Swarthout
City State Zip: Novi, MI 48377	Email: Tony.Maffeo@arcadis-us.com
Project Name/Location (City, State): RACER Buick City - Flint, MI	Project #: B0064410.2013.01500
Sampler's Printed Name: Ben Lawrence	Sampler's Signature: [signature]

Preservative	E	E
# of Containers	1	1
Container Information	1	1

KEYS

Preservative	Container	Matrix
A. None	1. Summa Canniste	A = Air

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	TO-3 (Total Voc's) C5-C10	TO-15 w/Methyclohexan as TIC	REMARKS
AOI-09B-SVE-INF (100913)	100913	1030		X	A	X	X	Cannister # 09991
AOI-09B-AS-OWS- INF (100913)	100913	1045		X	A	X	X	Cannister # 10000

Received @ ambient
Custody seal intact
box
[illegible] 10/10/13
fedex [illegible]
trk# 9044 0672 2970

140-253 Chain of Custody

Special Instructions/Comments:

Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Test America - Knoxville, TN	Cooler Custody Seal ☐ Intact ☐ Not Intact	Printed Name: Ben Lawrence	Printed Name: Terri Harlin	Printed Name: Terri Harlin
		Signature: [signature]	Signature: [signature]	Signature: [signature]
Specify Turnaround Requirements: 2 week	Sample Receipt:	Firm: ARCADIS	Firm: TAL	Firm: TAL
Fed-Ex Tracking #:	Condition/Cooler Temp:	Date/Time: 10/9/2013	Date/Time: 10/9/13 1300	Date/Time: 10/9/13 1301

Received by: [signature] 10/10/13 1000
2 cans
No flow

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 140-253-1

Login Number: 253

List Source: TestAmerica Knoxville

List Number: 1

Creator: Dameron, Bryan K

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	CHECKED IN LAB
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 140-253-1

Login Number: 253
List Number: 1
Creator: Poucher, Stephanie A

List Source: TestAmerica Burlington
List Creation: 10/21/13 12:58 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	ambient
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica Knoxville - Air Canister Initial Pressure Check

Analyst	Date	Time	Sample ID	6 L	1 L	Pressure @ Receipt (-in or +psig)	Comments
NRS	10/11/2013	8:37	140-253-a-1	6L		-11.2	
NRS	10/11/2013	8:38	140-253-a-2	6L		-10.2	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: 140-486-1
Client Project/Site: Racer - Buick City, MI

For:
ARCADIS U.S. Inc
10559 Citation Drive
Suite 100
Brighton, Michigan 48116

Attn: Andrea Krevinghaus

Terry Walker Wasmund

Authorized for release by:
12/6/2013 3:24:55 PM

Terry Walker Wasmund, Project Manager II
(865)291-3000
terry.wasmund@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 5
Client Sample Results 6
Surrogate Summary 10
QC Sample Results 11
QC Association Summary 16
Lab Chronicle 17
Certification Summary 18
Method Summary 20
Sample Summary 21
Chain of Custody 22
Receipt Checklists 23

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 140-486-1

Laboratory: TestAmerica Knoxville

Narrative

Job Narrative
140-486-1

Comments
No additional comments.

Receipt
The samples were received on 11/22/2013 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Except:

The Chain-of-Custody (COC) was not properly filled out. The asset numbers were switched for samples 1 and 2 on the COC. Sample 1 should have a asset number of 09512 and sample 2 should have a asset number of 10525. Both samples were logged with the correct asset number.

Air - GC/MS VOA
Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 486 exhibited % difference of > 30% for the following analyte(s) dichlorodifluoromethane and 1,2-dichlorotetrafluoroethane, however the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Method(s) TO-15: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for two analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 486 had trichlorofluoromethane outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) TO-15: EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Methylcyclohexane was quantitated based on a minimum 5-point calibration curve. The following interim criteria are being used until the method performance for these additional analytes is fully established:

• The initial calibration acceptance criteria is set at 40% RSD. Any compound greater than 40% RSD was changed to a linear or quadratic model with an r2 ≥ 0.990 acceptance criteria.
• There are no criteria for second source standard verification % D. The second source standard was independently prepared from the same parent mixture (as the primary source).
• The continuing calibration verification criteria are set at 50% D. Any compound greater than 50% D must pass the LCS criteria.
• The LCS recovery criteria are set at 20% to 180%.
• A method detection limit study has not been performed. The detection of the analytes is demonstrated by detection of the calibration standard at the reporting limit. No estimated results are reported below the reporting limit.

No other analytical or quality issues were noted.

Air Toxics
No analytical or quality issues were noted.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Client Sample ID: AOI-09B-SVE-INF (112013) — Lab Sample ID: 140-486-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	270		19	5.4	ppb v/v	9.73		TO-15	Total/NA
1,2-Dichloroethane	7.4	J	19	4.6	ppb v/v	9.73		TO-15	Total/NA
Ethylbenzene	68		19	6.6	ppb v/v	9.73		TO-15	Total/NA
Methylcyclohexane	1000		19	19	ppb v/v	9.73		TO-15	Total/NA
m-Xylene & p-Xylene	240		19	12	ppb v/v	9.73		TO-15	Total/NA
o-Xylene	67		19	5.9	ppb v/v	9.73		TO-15	Total/NA
Toluene	130		19	12	ppb v/v	9.73		TO-15	Total/NA
1,2,4-Trimethylbenzene	94		19	6.1	ppb v/v	9.73		TO-15	Total/NA
1,3,5-Trimethylbenzene	26		19	6.3	ppb v/v	9.73		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	27000		970	970	ppb v/v	69.5		TO3	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	850		62	17	ug/m3	9.73		TO-15	Total/NA
1,2-Dichloroethane	30	J	79	19	ug/m3	9.73		TO-15	Total/NA
Ethylbenzene	300		85	29	ug/m3	9.73		TO-15	Total/NA
Methylcyclohexane	4000		78	78	ug/m3	9.73		TO-15	Total/NA
m-Xylene & p-Xylene	1000		85	51	ug/m3	9.73		TO-15	Total/NA
o-Xylene	290		85	26	ug/m3	9.73		TO-15	Total/NA
Toluene	500		73	44	ug/m3	9.73		TO-15	Total/NA
1,2,4-Trimethylbenzene	460		96	30	ug/m3	9.73		TO-15	Total/NA
1,3,5-Trimethylbenzene	130		96	31	ug/m3	9.73		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	110000		4000	4000	ug/m3	69.5		TO3	Total/NA

Client Sample ID: AOI-09B-AS-OWS-INF (112013) — Lab Sample ID: 140-486-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.3		3.3	0.91	ppb v/v	4.08		TO-15	Total/NA
Chloromethane	3.3	J	8.2	2.6	ppb v/v	4.08		TO-15	Total/NA
Ethylbenzene	17		3.3	1.1	ppb v/v	4.08		TO-15	Total/NA
Methylcyclohexane	230		3.3	3.3	ppb v/v	4.08		TO-15	Total/NA
m-Xylene & p-Xylene	75		3.3	2.0	ppb v/v	4.08		TO-15	Total/NA
o-Xylene	29		3.3	1.0	ppb v/v	4.08		TO-15	Total/NA
Toluene	18		3.3	2.0	ppb v/v	4.08		TO-15	Total/NA
1,2,4-Trimethylbenzene	93		3.3	1.0	ppb v/v	4.08		TO-15	Total/NA
1,3,5-Trimethylbenzene	26		3.3	1.1	ppb v/v	4.08		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	7500		140	140	ppb v/v	10.2		TO3	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		10	2.9	ug/m3	4.08		TO-15	Total/NA
Chloromethane	6.9	J	17	5.4	ug/m3	4.08		TO-15	Total/NA
Ethylbenzene	72		14	4.8	ug/m3	4.08		TO-15	Total/NA
Methylcyclohexane	910		13	13	ug/m3	4.08		TO-15	Total/NA
m-Xylene & p-Xylene	330		14	8.5	ug/m3	4.08		TO-15	Total/NA
o-Xylene	130		14	4.3	ug/m3	4.08		TO-15	Total/NA
Toluene	67		12	7.4	ug/m3	4.08		TO-15	Total/NA
1,2,4-Trimethylbenzene	460		16	5.1	ug/m3	4.08		TO-15	Total/NA
1,3,5-Trimethylbenzene	130		16	5.2	ug/m3	4.08		TO-15	Total/NA
TPH GRO as Octane (C5-C10)	31000		580	580	ug/m3	10.2		TO3	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Client Sample ID: AOI-09B-SVE-INF (112013)
Date Collected: 11/20/13 12:00
Date Received: 11/22/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-486-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**270**		19	5.4	ppb v/v			11/26/13 09:03	9.73
Benzyl chloride	ND		39	7.6	ppb v/v			11/26/13 09:03	9.73
Bromomethane	ND		19	3.1	ppb v/v			11/26/13 09:03	9.73
Carbon tetrachloride	ND		19	3.7	ppb v/v			11/26/13 09:03	9.73
Chlorobenzene	ND		19	4.8	ppb v/v			11/26/13 09:03	9.73
Chloroethane	ND		19	3.4	ppb v/v			11/26/13 09:03	9.73
Chloroform	ND		19	3.7	ppb v/v			11/26/13 09:03	9.73
Chloromethane	ND		49	16	ppb v/v			11/26/13 09:03	9.73
cis-1,2-Dichloroethene	ND		19	5.8	ppb v/v			11/26/13 09:03	9.73
cis-1,3-Dichloropropene	ND		19	7.2	ppb v/v			11/26/13 09:03	9.73
1,2-Dibromoethane (EDB)	ND		19	4.3	ppb v/v			11/26/13 09:03	9.73
1,2-Dichlorobenzene	ND		19	6.8	ppb v/v			11/26/13 09:03	9.73
1,3-Dichlorobenzene	ND		19	6.3	ppb v/v			11/26/13 09:03	9.73
1,4-Dichlorobenzene	ND		19	6.2	ppb v/v			11/26/13 09:03	9.73
Dichlorodifluoromethane	ND		19	6.6	ppb v/v			11/26/13 09:03	9.73
1,1-Dichloroethane	ND		19	2.5	ppb v/v			11/26/13 09:03	9.73
1,2-Dichloroethane	**7.4**	**J**	19	4.6	ppb v/v			11/26/13 09:03	9.73
1,1-Dichloroethene	ND		19	3.3	ppb v/v			11/26/13 09:03	9.73
1,2-Dichloropropane	ND		19	5.1	ppb v/v			11/26/13 09:03	9.73
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		19	3.1	ppb v/v			11/26/13 09:03	9.73
Ethylbenzene	**68**		19	6.6	ppb v/v			11/26/13 09:03	9.73
Hexachlorobutadiene	ND		97	7.6	ppb v/v			11/26/13 09:03	9.73
Methylcyclohexane	**1000**		19	19	ppb v/v			11/26/13 09:03	9.73
Methylene Chloride	ND		49	13	ppb v/v			11/26/13 09:03	9.73
m-Xylene & p-Xylene	**240**		19	12	ppb v/v			11/26/13 09:03	9.73
o-Xylene	**67**		19	5.9	ppb v/v			11/26/13 09:03	9.73
Styrene	ND		19	5.6	ppb v/v			11/26/13 09:03	9.73
1,1,2,2-Tetrachloroethane	ND		19	5.9	ppb v/v			11/26/13 09:03	9.73
Tetrachloroethene	ND		19	3.9	ppb v/v			11/26/13 09:03	9.73
Toluene	**130**		19	12	ppb v/v			11/26/13 09:03	9.73
trans-1,3-Dichloropropene	ND		19	4.7	ppb v/v			11/26/13 09:03	9.73
1,2,4-Trichlorobenzene	ND		97	9.5	ppb v/v			11/26/13 09:03	9.73
1,1,1-Trichloroethane	ND		19	2.9	ppb v/v			11/26/13 09:03	9.73
1,1,2-Trichloroethane	ND		19	5.3	ppb v/v			11/26/13 09:03	9.73
Trichloroethene	ND		19	3.5	ppb v/v			11/26/13 09:03	9.73
Trichlorofluoromethane	ND	*	19	2.3	ppb v/v			11/26/13 09:03	9.73
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		19	3.0	ppb v/v			11/26/13 09:03	9.73
1,2,4-Trimethylbenzene	**94**		19	6.1	ppb v/v			11/26/13 09:03	9.73
1,3,5-Trimethylbenzene	**26**		19	6.3	ppb v/v			11/26/13 09:03	9.73
Vinyl chloride	ND		19	6.9	ppb v/v			11/26/13 09:03	9.73

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**850**		62	17	ug/m3			11/26/13 09:03	9.73
Benzyl chloride	ND		200	39	ug/m3			11/26/13 09:03	9.73
Bromomethane	ND		76	12	ug/m3			11/26/13 09:03	9.73
Carbon tetrachloride	ND		120	23	ug/m3			11/26/13 09:03	9.73
Chlorobenzene	ND		90	22	ug/m3			11/26/13 09:03	9.73
Chloroethane	ND		51	9.0	ug/m3			11/26/13 09:03	9.73
Chloroform	ND		95	18	ug/m3			11/26/13 09:03	9.73

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Client Sample ID: AOI-09B-SVE-INF (112013)
Date Collected: 11/20/13 12:00
Date Received: 11/22/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-486-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		100	32	ug/m3			11/26/13 09:03	9.73
cis-1,2-Dichloroethene	ND		77	23	ug/m3			11/26/13 09:03	9.73
cis-1,3-Dichloropropene	ND		88	33	ug/m3			11/26/13 09:03	9.73
1,2-Dibromoethane (EDB)	ND		150	33	ug/m3			11/26/13 09:03	9.73
1,2-Dichlorobenzene	ND		120	41	ug/m3			11/26/13 09:03	9.73
1,3-Dichlorobenzene	ND		120	38	ug/m3			11/26/13 09:03	9.73
1,4-Dichlorobenzene	ND		120	37	ug/m3			11/26/13 09:03	9.73
Dichlorodifluoromethane	ND		96	33	ug/m3			11/26/13 09:03	9.73
1,1-Dichloroethane	ND		79	10	ug/m3			11/26/13 09:03	9.73
1,2-Dichloroethane	**30**	**J**	79	19	ug/m3			11/26/13 09:03	9.73
1,1-Dichloroethene	ND		77	13	ug/m3			11/26/13 09:03	9.73
1,2-Dichloropropane	ND		90	23	ug/m3			11/26/13 09:03	9.73
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		140	22	ug/m3			11/26/13 09:03	9.73
Ethylbenzene	**300**		85	29	ug/m3			11/26/13 09:03	9.73
Hexachlorobutadiene	ND		1000	81	ug/m3			11/26/13 09:03	9.73
Methylcyclohexane	**4000**		78	78	ug/m3			11/26/13 09:03	9.73
Methylene Chloride	ND		170	44	ug/m3			11/26/13 09:03	9.73
m-Xylene & p-Xylene	**1000**		85	51	ug/m3			11/26/13 09:03	9.73
o-Xylene	**290**		85	26	ug/m3			11/26/13 09:03	9.73
Styrene	ND		83	24	ug/m3			11/26/13 09:03	9.73
1,1,2,2-Tetrachloroethane	ND		130	41	ug/m3			11/26/13 09:03	9.73
Tetrachloroethene	ND		130	26	ug/m3			11/26/13 09:03	9.73
Toluene	**500**		73	44	ug/m3			11/26/13 09:03	9.73
trans-1,3-Dichloropropene	ND		88	21	ug/m3			11/26/13 09:03	9.73
1,2,4-Trichlorobenzene	ND		720	71	ug/m3			11/26/13 09:03	9.73
1,1,1-Trichloroethane	ND		110	16	ug/m3			11/26/13 09:03	9.73
1,1,2-Trichloroethane	ND		110	29	ug/m3			11/26/13 09:03	9.73
Trichloroethene	ND		100	19	ug/m3			11/26/13 09:03	9.73
Trichlorofluoromethane	ND	*	110	13	ug/m3			11/26/13 09:03	9.73
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		150	23	ug/m3			11/26/13 09:03	9.73
1,2,4-Trimethylbenzene	**460**		96	30	ug/m3			11/26/13 09:03	9.73
1,3,5-Trimethylbenzene	**130**		96	31	ug/m3			11/26/13 09:03	9.73
Vinyl chloride	ND		50	18	ug/m3			11/26/13 09:03	9.73

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*60 - 140*		*11/26/13 09:03*	*9.73*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**27000**		970	970	ppb v/v			12/06/13 03:26	69.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**110000**		4000	4000	ug/m3			12/06/13 03:26	69.5

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Client Sample ID: AOI-09B-AS-OWS-INF (112013)
Date Collected: 11/20/13 12:20
Date Received: 11/22/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-486-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.3**		3.3	0.91	ppb v/v			11/26/13 12:09	4.08
Benzyl chloride	ND		6.5	1.3	ppb v/v			11/26/13 12:09	4.08
Bromomethane	ND		3.3	0.52	ppb v/v			11/26/13 12:09	4.08
Carbon tetrachloride	ND		3.3	0.62	ppb v/v			11/26/13 12:09	4.08
Chlorobenzene	ND		3.3	0.80	ppb v/v			11/26/13 12:09	4.08
Chloroethane	ND		3.3	0.57	ppb v/v			11/26/13 12:09	4.08
Chloroform	ND		3.3	0.62	ppb v/v			11/26/13 12:09	4.08
Chloromethane	**3.3**	**J**	8.2	2.6	ppb v/v			11/26/13 12:09	4.08
cis-1,2-Dichloroethene	ND		3.3	0.98	ppb v/v			11/26/13 12:09	4.08
cis-1,3-Dichloropropene	ND		3.3	1.2	ppb v/v			11/26/13 12:09	4.08
1,2-Dibromoethane (EDB)	ND		3.3	0.72	ppb v/v			11/26/13 12:09	4.08
1,2-Dichlorobenzene	ND		3.3	1.1	ppb v/v			11/26/13 12:09	4.08
1,3-Dichlorobenzene	ND		3.3	1.1	ppb v/v			11/26/13 12:09	4.08
1,4-Dichlorobenzene	ND		3.3	1.0	ppb v/v			11/26/13 12:09	4.08
Dichlorodifluoromethane	ND		3.3	1.1	ppb v/v			11/26/13 12:09	4.08
1,1-Dichloroethane	ND		3.3	0.42	ppb v/v			11/26/13 12:09	4.08
1,2-Dichloroethane	ND		3.3	0.77	ppb v/v			11/26/13 12:09	4.08
1,1-Dichloroethene	ND		3.3	0.55	ppb v/v			11/26/13 12:09	4.08
1,2-Dichloropropane	ND		3.3	0.85	ppb v/v			11/26/13 12:09	4.08
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		3.3	0.52	ppb v/v			11/26/13 12:09	4.08
Ethylbenzene	**17**		3.3	1.1	ppb v/v			11/26/13 12:09	4.08
Hexachlorobutadiene	ND		16	1.3	ppb v/v			11/26/13 12:09	4.08
Methylcyclohexane	**230**		3.3	3.3	ppb v/v			11/26/13 12:09	4.08
Methylene Chloride	ND		8.2	2.1	ppb v/v			11/26/13 12:09	4.08
m-Xylene & p-Xylene	**75**		3.3	2.0	ppb v/v			11/26/13 12:09	4.08
o-Xylene	**29**		3.3	1.0	ppb v/v			11/26/13 12:09	4.08
Styrene	ND		3.3	0.95	ppb v/v			11/26/13 12:09	4.08
1,1,2,2-Tetrachloroethane	ND		3.3	1.0	ppb v/v			11/26/13 12:09	4.08
Tetrachloroethene	ND		3.3	0.65	ppb v/v			11/26/13 12:09	4.08
Toluene	**18**		3.3	2.0	ppb v/v			11/26/13 12:09	4.08
trans-1,3-Dichloropropene	ND		3.3	0.78	ppb v/v			11/26/13 12:09	4.08
1,2,4-Trichlorobenzene	ND		16	1.6	ppb v/v			11/26/13 12:09	4.08
1,1,1-Trichloroethane	ND		3.3	0.49	ppb v/v			11/26/13 12:09	4.08
1,1,2-Trichloroethane	ND		3.3	0.88	ppb v/v			11/26/13 12:09	4.08
Trichloroethene	ND		3.3	0.59	ppb v/v			11/26/13 12:09	4.08
Trichlorofluoromethane	ND	*	3.3	0.39	ppb v/v			11/26/13 12:09	4.08
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.3	0.51	ppb v/v			11/26/13 12:09	4.08
1,2,4-Trimethylbenzene	**93**		3.3	1.0	ppb v/v			11/26/13 12:09	4.08
1,3,5-Trimethylbenzene	**26**		3.3	1.1	ppb v/v			11/26/13 12:09	4.08
Vinyl chloride	ND		3.3	1.2	ppb v/v			11/26/13 12:09	4.08

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**14**		10	2.9	ug/m3			11/26/13 12:09	4.08
Benzyl chloride	ND		34	6.6	ug/m3			11/26/13 12:09	4.08
Bromomethane	ND		13	2.0	ug/m3			11/26/13 12:09	4.08
Carbon tetrachloride	ND		21	3.9	ug/m3			11/26/13 12:09	4.08
Chlorobenzene	ND		15	3.7	ug/m3			11/26/13 12:09	4.08
Chloroethane	ND		8.6	1.5	ug/m3			11/26/13 12:09	4.08
Chloroform	ND		16	3.0	ug/m3			11/26/13 12:09	4.08

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Client Sample ID: AOI-09B-AS-OWS-INF (112013)
Date Collected: 11/20/13 12:20
Date Received: 11/22/13 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-486-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	**6.9**	**J**	17	5.4	ug/m3			11/26/13 12:09	4.08
cis-1,2-Dichloroethene	ND		13	3.9	ug/m3			11/26/13 12:09	4.08
cis-1,3-Dichloropropene	ND		15	5.5	ug/m3			11/26/13 12:09	4.08
1,2-Dibromoethane (EDB)	ND		25	5.5	ug/m3			11/26/13 12:09	4.08
1,2-Dichlorobenzene	ND		20	6.9	ug/m3			11/26/13 12:09	4.08
1,3-Dichlorobenzene	ND		20	6.4	ug/m3			11/26/13 12:09	4.08
1,4-Dichlorobenzene	ND		20	6.3	ug/m3			11/26/13 12:09	4.08
Dichlorodifluoromethane	ND		16	5.5	ug/m3			11/26/13 12:09	4.08
1,1-Dichloroethane	ND		13	1.7	ug/m3			11/26/13 12:09	4.08
1,2-Dichloroethane	ND		13	3.1	ug/m3			11/26/13 12:09	4.08
1,1-Dichloroethene	ND		13	2.2	ug/m3			11/26/13 12:09	4.08
1,2-Dichloropropane	ND		15	3.9	ug/m3			11/26/13 12:09	4.08
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		23	3.7	ug/m3			11/26/13 12:09	4.08
Ethylbenzene	**72**		14	4.8	ug/m3			11/26/13 12:09	4.08
Hexachlorobutadiene	ND		170	14	ug/m3			11/26/13 12:09	4.08
Methylcyclohexane	**910**		13	13	ug/m3			11/26/13 12:09	4.08
Methylene Chloride	ND		28	7.4	ug/m3			11/26/13 12:09	4.08
m-Xylene & p-Xylene	**330**		14	8.5	ug/m3			11/26/13 12:09	4.08
o-Xylene	**130**		14	4.3	ug/m3			11/26/13 12:09	4.08
Styrene	ND		14	4.0	ug/m3			11/26/13 12:09	4.08
1,1,2,2-Tetrachloroethane	ND		22	6.8	ug/m3			11/26/13 12:09	4.08
Tetrachloroethene	ND		22	4.4	ug/m3			11/26/13 12:09	4.08
Toluene	**67**		12	7.4	ug/m3			11/26/13 12:09	4.08
trans-1,3-Dichloropropene	ND		15	3.6	ug/m3			11/26/13 12:09	4.08
1,2,4-Trichlorobenzene	ND		120	12	ug/m3			11/26/13 12:09	4.08
1,1,1-Trichloroethane	ND		18	2.7	ug/m3			11/26/13 12:09	4.08
1,1,2-Trichloroethane	ND		18	4.8	ug/m3			11/26/13 12:09	4.08
Trichloroethene	ND		18	3.2	ug/m3			11/26/13 12:09	4.08
Trichlorofluoromethane	ND	*	18	2.2	ug/m3			11/26/13 12:09	4.08
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	3.9	ug/m3			11/26/13 12:09	4.08
1,2,4-Trimethylbenzene	**460**		16	5.1	ug/m3			11/26/13 12:09	4.08
1,3,5-Trimethylbenzene	**130**		16	5.2	ug/m3			11/26/13 12:09	4.08
Vinyl chloride	ND		8.3	3.0	ug/m3			11/26/13 12:09	4.08

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*60 - 140*		*11/26/13 12:09*	*4.08*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**7500**		140	140	ppb v/v			12/06/13 04:13	10.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	**31000**		580	580	ug/m3			12/06/13 04:13	10.2

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB								
Lab Sample ID	Client Sample ID	(60-140)								
140-486-1	AOI-09B-SVE-INF (112013)	112								
140-486-2	AOI-09B-AS-OWS-INF (112013)	115								
LCS 140-486/1002	Lab Control Sample	119								
MB 140-486/7	Method Blank	110								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-486/7
Matrix: Air
Analysis Batch: 486

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20	0.056	ppb v/v			11/25/13 18:59	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			11/25/13 18:59	1
Bromomethane	ND		0.20	0.032	ppb v/v			11/25/13 18:59	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			11/25/13 18:59	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			11/25/13 18:59	1
Chloroethane	ND		0.20	0.035	ppb v/v			11/25/13 18:59	1
Chloroform	ND		0.20	0.038	ppb v/v			11/25/13 18:59	1
Chloromethane	ND		0.50	0.16	ppb v/v			11/25/13 18:59	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			11/25/13 18:59	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			11/25/13 18:59	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			11/25/13 18:59	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			11/25/13 18:59	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			11/25/13 18:59	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			11/25/13 18:59	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			11/25/13 18:59	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			11/25/13 18:59	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			11/25/13 18:59	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			11/25/13 18:59	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			11/25/13 18:59	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			11/25/13 18:59	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			11/25/13 18:59	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			11/25/13 18:59	1
Methylcyclohexane	ND		0.20	0.20	ppb v/v			11/25/13 18:59	1
Methylene Chloride	ND		0.50	0.13	ppb v/v			11/25/13 18:59	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			11/25/13 18:59	1
o-Xylene	ND		0.20	0.061	ppb v/v			11/25/13 18:59	1
Styrene	ND		0.20	0.058	ppb v/v			11/25/13 18:59	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			11/25/13 18:59	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			11/25/13 18:59	1
Toluene	ND		0.20	0.12	ppb v/v			11/25/13 18:59	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			11/25/13 18:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			11/25/13 18:59	1
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			11/25/13 18:59	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			11/25/13 18:59	1
Trichloroethene	ND		0.20	0.036	ppb v/v			11/25/13 18:59	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			11/25/13 18:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			11/25/13 18:59	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			11/25/13 18:59	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			11/25/13 18:59	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			11/25/13 18:59	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64	0.18	ug/m3			11/25/13 18:59	1
Benzyl chloride	ND		2.1	0.40	ug/m3			11/25/13 18:59	1
Bromomethane	ND		0.78	0.12	ug/m3			11/25/13 18:59	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			11/25/13 18:59	1
Chlorobenzene	ND		0.92	0.23	ug/m3			11/25/13 18:59	1
Chloroethane	ND		0.53	0.092	ug/m3			11/25/13 18:59	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-486/7
Matrix: Air
Analysis Batch: 486

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.98	0.19	ug/m3			11/25/13 18:59	1
Chloromethane	ND		1.0	0.33	ug/m3			11/25/13 18:59	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			11/25/13 18:59	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			11/25/13 18:59	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			11/25/13 18:59	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			11/25/13 18:59	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			11/25/13 18:59	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			11/25/13 18:59	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			11/25/13 18:59	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			11/25/13 18:59	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			11/25/13 18:59	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			11/25/13 18:59	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			11/25/13 18:59	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			11/25/13 18:59	1
Ethylbenzene	ND		0.87	0.30	ug/m3			11/25/13 18:59	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			11/25/13 18:59	1
Methylcyclohexane	ND		0.80	0.80	ug/m3			11/25/13 18:59	1
Methylene Chloride	ND		1.7	0.45	ug/m3			11/25/13 18:59	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			11/25/13 18:59	1
o-Xylene	ND		0.87	0.26	ug/m3			11/25/13 18:59	1
Styrene	ND		0.85	0.25	ug/m3			11/25/13 18:59	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			11/25/13 18:59	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			11/25/13 18:59	1
Toluene	ND		0.75	0.45	ug/m3			11/25/13 18:59	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			11/25/13 18:59	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			11/25/13 18:59	1
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			11/25/13 18:59	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			11/25/13 18:59	1
Trichloroethene	ND		1.1	0.19	ug/m3			11/25/13 18:59	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			11/25/13 18:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			11/25/13 18:59	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			11/25/13 18:59	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			11/25/13 18:59	1
Vinyl chloride	ND		0.51	0.18	ug/m3			11/25/13 18:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*		*11/25/13 18:59*	*1*

Lab Sample ID: LCS 140-486/1002
Matrix: Air
Analysis Batch: 486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.00	1.54		ppb v/v		77	70 - 130
Benzyl chloride	2.00	2.17		ppb v/v		109	70 - 130
Bromomethane	2.00	2.47		ppb v/v		124	70 - 130
Carbon tetrachloride	2.00	2.30		ppb v/v		115	70 - 130
Chlorobenzene	2.00	1.85		ppb v/v		92	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-486/1002
Matrix: Air
Analysis Batch: 486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	2.00	2.32		ppb v/v		116	70 - 130
Chloroform	2.00	1.92		ppb v/v		96	70 - 130
Chloromethane	2.00	2.02		ppb v/v		101	60 - 140
cis-1,2-Dichloroethene	2.00	1.73		ppb v/v		87	70 - 130
cis-1,3-Dichloropropene	2.00	1.72		ppb v/v		86	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.92		ppb v/v		96	70 - 130
1,2-Dichlorobenzene	2.00	2.14		ppb v/v		107	70 - 130
1,3-Dichlorobenzene	2.00	2.11		ppb v/v		105	70 - 130
1,4-Dichlorobenzene	2.00	2.11		ppb v/v		105	70 - 130
Dichlorodifluoromethane	2.00	2.78		ppb v/v		139	60 - 140
1,1-Dichloroethane	2.00	1.65		ppb v/v		82	70 - 130
1,2-Dichloroethane	2.00	1.93		ppb v/v		97	70 - 130
1,1-Dichloroethene	2.00	1.93		ppb v/v		97	70 - 130
1,2-Dichloropropane	2.00	1.58		ppb v/v		79	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.80		ppb v/v		140	60 - 140
Ethylbenzene	2.00	1.80		ppb v/v		90	70 - 130
Hexachlorobutadiene	2.00	2.47		ppb v/v		124	60 - 140
Methylcyclohexane	2.00	1.61		ppb v/v		81	20 - 180
Methylene Chloride	2.00	1.64		ppb v/v		82	70 - 130
m-Xylene & p-Xylene	4.00	3.92		ppb v/v		98	70 - 130
o-Xylene	2.00	1.92		ppb v/v		96	70 - 130
Styrene	2.00	1.88		ppb v/v		94	70 - 130
1,1,2,2-Tetrachloroethane	2.00	1.73		ppb v/v		87	70 - 130
Tetrachloroethene	2.00	1.98		ppb v/v		99	70 - 130
Toluene	2.00	1.51		ppb v/v		75	70 - 130
trans-1,3-Dichloropropene	2.00	1.81		ppb v/v		90	70 - 130
1,2,4-Trichlorobenzene	2.00	1.89		ppb v/v		94	60 - 140
1,1,1-Trichloroethane	2.00	2.05		ppb v/v		102	70 - 130
1,1,2-Trichloroethane	2.00	1.80		ppb v/v		90	70 - 130
Trichloroethene	2.00	1.87		ppb v/v		93	70 - 130
Trichlorofluoromethane	2.00	2.89	*	ppb v/v		144	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.08		ppb v/v		104	70 - 130
1,2,4-Trimethylbenzene	2.00	2.15		ppb v/v		108	70 - 130
1,3,5-Trimethylbenzene	2.00	2.06		ppb v/v		103	70 - 130
Vinyl chloride	2.00	2.09		ppb v/v		105	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	4.94		ug/m3		77	70 - 130
Benzyl chloride	10	11.2		ug/m3		109	70 - 130
Bromomethane	7.8	9.60		ug/m3		124	70 - 130
Carbon tetrachloride	13	14.5		ug/m3		115	70 - 130
Chlorobenzene	9.2	8.50		ug/m3		92	70 - 130
Chloroethane	5.3	6.11		ug/m3		116	70 - 130
Chloroform	9.8	9.36		ug/m3		96	70 - 130
Chloromethane	4.1	4.17		ug/m3		101	60 - 140
cis-1,2-Dichloroethene	7.9	6.87		ug/m3		87	70 - 130
cis-1,3-Dichloropropene	9.1	7.79		ug/m3		86	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-486/1002
Matrix: Air
Analysis Batch: 486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	15	14.7		ug/m3		96	70 - 130
1,2-Dichlorobenzene	12	12.9		ug/m3		107	70 - 130
1,3-Dichlorobenzene	12	12.7		ug/m3		105	70 - 130
1,4-Dichlorobenzene	12	12.7		ug/m3		105	70 - 130
Dichlorodifluoromethane	9.9	13.7		ug/m3		139	60 - 140
1,1-Dichloroethane	8.1	6.67		ug/m3		82	70 - 130
1,2-Dichloroethane	8.1	7.82		ug/m3		97	70 - 130
1,1-Dichloroethene	7.9	7.66		ug/m3		97	70 - 130
1,2-Dichloropropane	9.2	7.32		ug/m3		79	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	19.6		ug/m3		140	60 - 140
Ethylbenzene	8.7	7.84		ug/m3		90	70 - 130
Hexachlorobutadiene	21	26.4		ug/m3		124	60 - 140
Methylcyclohexane	8.0	6.48		ug/m3		81	20 - 180
Methylene Chloride	6.9	5.71		ug/m3		82	70 - 130
m-Xylene & p-Xylene	17	17.0		ug/m3		98	70 - 130
o-Xylene	8.7	8.35		ug/m3		96	70 - 130
Styrene	8.5	8.02		ug/m3		94	70 - 130
1,1,2,2-Tetrachloroethane	14	11.9		ug/m3		87	70 - 130
Tetrachloroethene	14	13.4		ug/m3		99	70 - 130
Toluene	7.5	5.67		ug/m3		75	70 - 130
trans-1,3-Dichloropropene	9.1	8.20		ug/m3		90	70 - 130
1,2,4-Trichlorobenzene	15	14.0		ug/m3		94	60 - 140
1,1,1-Trichloroethane	11	11.2		ug/m3		102	70 - 130
1,1,2-Trichloroethane	11	9.83		ug/m3		90	70 - 130
Trichloroethene	11	10.0		ug/m3		93	70 - 130
Trichlorofluoromethane	11	16.2	*	ug/m3		144	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	15	16.0		ug/m3		104	70 - 130
1,2,4-Trimethylbenzene	9.8	10.6		ug/m3		108	70 - 130
1,3,5-Trimethylbenzene	9.8	10.1		ug/m3		103	70 - 130
Vinyl chloride	5.1	5.35		ug/m3		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*60 - 140*

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)

Lab Sample ID: MB 200-65588/3
Matrix: Air
Analysis Batch: 65588

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	ND		14	14	ppb v/v			12/05/13 16:27	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH GRO as Octane (C5-C10)	ND		57	57	ug/m3			12/05/13 16:27	1

Method: TO3 - Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC) (Continued)

Lab Sample ID: LCS 200-65588/2
Matrix: Air
Analysis Batch: 65588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	10.0	ND		ppb v/v		101	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH GRO as Octane (C5-C10)	41	ND		ug/m3		101	70 - 130

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Air - GC/MS VOA

Analysis Batch: 486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-486-1	AOI-09B-SVE-INF (112013)	Total/NA	Air	TO-15	
140-486-2	AOI-09B-AS-OWS-INF (112013)	Total/NA	Air	TO-15	
LCS 140-486/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-486/7	Method Blank	Total/NA	Air	TO-15	

Analysis Batch: 65588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-486-1	AOI-09B-SVE-INF (112013)	Total/NA	Air	TO3	
140-486-2	AOI-09B-AS-OWS-INF (112013)	Total/NA	Air	TO3	
LCS 200-65588/2	Lab Control Sample	Total/NA	Air	TO3	
MB 200-65588/3	Method Blank	Total/NA	Air	TO3	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Client Sample ID: AOI-09B-SVE-INF (112013)

Lab Sample ID: 140-486-1

Date Collected: 11/20/13 12:00

Matrix: Air

Date Received: 11/22/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		9.73	20 mL	500 mL	486	11/26/13 09:03	AFB	TAL KNX
	Instrument ID: ME									
Total/NA	Analysis	TO3		69.5	28 mL	200 mL	65588	12/06/13 03:26	BPL	TAL BUR
	Instrument ID: G.i									

Client Sample ID: AOI-09B-AS-OWS-INF (112013)

Lab Sample ID: 140-486-2

Date Collected: 11/20/13 12:20

Matrix: Air

Date Received: 11/22/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		4.08	50 mL	500 mL	486	11/26/13 12:09	AFB	TAL KNX
	Instrument ID: ME									
Total/NA	Analysis	TO3		10.2	80 mL	200 mL	65588	12/06/13 04:13	BPL	TAL BUR
	Instrument ID: G.i									

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-17-14
California	State Program	9	2423	06-30-14
Colorado	State Program	8	N/A	02-28-14
Connecticut	State Program	1	PH-0223	09-30-15
Florida	NELAP	4	E87177	06-30-14
Georgia	State Program	4	906	06-13-14
Hawaii	State Program	9	N/A	04-13-14
Indiana	State Program	5	C-TN-02	04-13-14
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-14
Kentucky	State Program	4	90101	12-31-13
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-14
Maryland	State Program	3	277	03-31-14
Michigan	State Program	5	9933	04-13-14
Nevada	State Program	9	TN00009	07-31-14
New Jersey	NELAP	2	TN001	06-30-14
New York	NELAP	2	10781	04-01-14
North Carolina DENR	State Program	4	64	12-31-14
North Carolina DHHS	State Program	4	21705	07-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-31-14
Pennsylvania	NELAP	3	68-00576	12-31-13 *
South Carolina	State Program	4	84001	06-30-14
Tennessee	State Program	4	2014	04-13-14
Texas	NELAP	6	T104704380-TX	08-31-14
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-14
Virginia	NELAP	3	460176	09-14-14
Virginia	State Program	3	165	06-30-14
Washington	State Program	10	C593	01-19-14
West Virginia	State Program	3	9955C	12-31-13 *
West Virginia DEP	State Program	3	345	04-30-14
Wisconsin	State Program	5	998044300	08-31-14

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-15 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-13-15
Florida	NELAP	4	E87467	06-30-14
L-A-B	DoD ELAP		L2336	02-26-14 *
Louisiana	NELAP	6	176292	06-30-14
Maine	State Program	1	VT00008	04-17-15
Minnesota	NELAP	5	050-999-436	12-31-13
New Hampshire	NELAP	1	2006	12-18-13
New Jersey	NELAP	2	VT972	06-30-14
New York	NELAP	2	10391	04-01-14

* Expired certification is currently pending renewal and is considered valid.

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Laboratory: TestAmerica Burlington (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00489	04-30-14
Rhode Island	State Program	1	LAO00298	12-30-13
US Fish & Wildlife	Federal		LE-058448-0	02-28-14
USDA	Federal		P330-11-00093	02-17-14
Vermont	State Program	1	VT-4000	12-31-13

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX
TO3	Volatile Organic Compounds in Ambient Air, Cryogenic Pre-Conc Techniques (GC)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Racer - Buick City, MI

TestAmerica Job ID: 140-486-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-486-1	AOI-09B-SVE-INF (112013)	Air	11/20/13 12:00	11/22/13 10:00
140-486-2	AOI-09B-AS-OWS-INF (112013)	Air	11/20/13 12:20	11/22/13 10:00

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC112013.1

Send Results To:

Contact & Company Name: Tony Maffeo	Telephone: 248.994.2240
Address: 28550 Cabot Dr. Suite 500	Site Contact: Trevor Swarthout
City State Zip: Novi, MI 48377	Email: Tony.Maffeo@arcadis-us.com
Project Name/Location (City, State): RACER Buick City - Flint, MI	Project #: B0064410.2013.01500
Sampler's Printed Name: Trevor Swarthout	Sampler's Signature: [signature]

Preservative	E	E
# of Containers	1	1
Container Information	1	1

KEYS

Preservative	Container	Matrix
A. None	1. Summa Cannister	A = Air

140-486 Chain of Custody

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	TO-3 (Total Voc's) C5-C10	TO-15 w/Methyclohexan as TIC	REMARKS
AOI-09B-SVE-INF (112013)	112013	1200		X	A	X	X	Cannister # ~~12538~~ 10525
AOI-09B-AS-OWS- INF (112013)	112013	1220		X	A	X	X	Cannister # ~~[illegible]~~ 09512

Received @ ambient
Custody seal intact
1 box
KW 11/22/13
fedex SO
trk# 9044 0672 9946

Special Instructions/Comments:

Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Test America - Knoxville, TN	Cooler Custody Seal: ☐ Intact ☐ Not Intact	Printed Name: Trevor Swarthout	Printed Name: Terri Harlin	Printed Name: Ken Wilson
		Signature: [signature]	Signature: Terri Harlin	Signature: Ken Wilson
Specify Turnaround Requirements: 2 week	Sample Receipt:	Firm: ARCADIS	Firm: TAL	Firm:
Fed-Ex Tracking #:	Condition/Cooler Temp:	Date/Time: 11.21.13 8:35	Date/Time: 11/21/13 8:38am	Date/Time: 11/22/13 1000

2 cans
No flows

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 140-486-1

Login Number: 486

List Source: TestAmerica Knoxville

List Number: 1

Creator: Wilson, Ken

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	CHECKED IN LAB
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 140-486-1

Login Number: 486
List Number: 1
Creator: Lavigne, Scott M

List Source: TestAmerica Burlington
List Creation: 12/05/13 08:35 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	890272
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	AMBIENT
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica Knoxville - Air Canister Initial Pressure Check

Analyst	Date	Time	Sample ID	6 L	1 L	Pressure @ Receipt (-in or +psig)	Comments
DDF	11/22/2013	1455	140-486-a-1	X		0	
DDF	11/22/2013	1456	140-486-a-2	X		-5.9	

Appendix C

Historic NPMP Data

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 04/01/10	Outfall 001 MP001 09/20/10	Outfall 001 MP001 02/24/11	Outfall 001 MP001 02/24/11	Outfall 001 MP001 03/24/11	Outfall 001 MP001 05/31/11	Outfall 001 MP001 06/27/11	Outfall 001 MP001 07/14/11	Outfall 001 MP001 08/15/11	Outfall 001 MP001 09/14/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	30 U	30 U	25 U	NA	25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	1	1 U	1 U	NA	1	1 U	1 U	1 U	1 U	2
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 04/01/10	Outfall 001 MP001 09/20/10	Outfall 001 MP001 02/24/11	Outfall 001 MP001 02/24/11	Outfall 001 MP001 03/24/11	Outfall 001 MP001 05/31/11	Outfall 001 MP001 06/27/11	Outfall 001 MP001 07/14/11	Outfall 001 MP001 08/15/11	Outfall 001 MP001 09/14/11
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	NA	90 U	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 04/01/10	Outfall 001 MP001 09/20/10	Outfall 001 MP001 02/24/11	Outfall 001 MP001 02/24/11	Outfall 001 MP001 03/24/11	Outfall 001 MP001 05/31/11	Outfall 001 MP001 06/27/11	Outfall 001 MP001 07/14/11	Outfall 001 MP001 08/15/11	Outfall 001 MP001 09/14/11
bis(2-Chloroethyl)ether	ug/L	1	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	1	1	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	1 U	5	2 U	NA	2 U	2 U	2 U	2	2 U	3
Barium	ug/L	1,308	96	23	126	NA	92	66	83	152	63	70
Beryllium	ug/L	26	1 U	0.8 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.2 U	0.5 U	2	NA	1.6	0.5 U	0.5 U	1.2	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	**45(GSI)**	NA	5 U	5 U	5 U	**28(GSI)**	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	3	6	**31(GSI)**	NA	6	4 U	4	**22(GSI)**	4 U	6
Cyanide (total)	ug/L	5.2	5 U	5 U	**12(GSI)**	NA	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	1 U	1 U	27	NA	16	3 U	5	**73(GSI)**	14	20
Manganese	ug/L	4,500	5 U	5	95	NA	35	10	18	298	5 U	13
Mercury	ng/L	1.3	1.1	**2.41(GSI)**	NA	**13(GSI)**	**4.6(GSI)**	**1.8(GSI)**	**2.9(GSI)**	**12(GSI)**	**1.4(GSI)**	1.2

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 04/01/10	Outfall 001 MP001 09/20/10	Outfall 001 MP001 02/24/11	Outfall 001 MP001 02/24/11	Outfall 001 MP001 03/24/11	Outfall 001 MP001 05/31/11	Outfall 001 MP001 06/27/11	Outfall 001 MP001 07/14/11	Outfall 001 MP001 08/15/11	Outfall 001 MP001 09/14/11
Nickel	ug/L	120	5 U	5 U	5 U	NA	5 U	5 U	5 U	12	5 U	5 U
Selenium	ug/L	5	1 U	5 U	5 U	NA	5 U	5 U	5 U	**6(GSI)**	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	0.4 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	2 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	20 U	20 U	61	20 U	20 U
Vanadium	ug/L	27	4 U	4 U	4 U	NA	4 U	4 U	4 U	5	4 U	4 U
Zinc	ug/L	260	12	48	235	NA	36	5 U	38	240	11	21
Miscellaneous												
Oil and Grease	ug/L	- -	1,000 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	NA	NA	64,000	NA	10,000	3,000	123,000	53,000	1,000	3,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	91	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	2	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	**37(GSI)**	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	9	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	5	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	41	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	46	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/12/11	Outfall 001 MP001 11/02/11	Outfall 001 MP001 12/13/11	Outfall 001 MP001 01/03/12	Outfall 001 MP001 02/06/12	Outfall 001 MP001 03/22/12	Outfall 001 MP001 04/09/12	Outfall 001 MP001 05/10/12	Outfall 001 MP001 06/04/12	Outfall 001 MP001 09/10/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
2-Butanone	ug/L	2,200	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA
Benzene	ug/L	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloroethane	ug/L	1,100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Chloroform	ug/L	350	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
cis-1,2-Dichloroethene	ug/L	620	2	1	1	1	2	1 U	1	1 U	2	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA
Ethylbenzene	ug/L	18	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
m&p-Xylene	ug/L	41	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/12/11	Outfall 001 MP001 11/02/11	Outfall 001 MP001 12/13/11	Outfall 001 MP001 01/03/12	Outfall 001 MP001 02/06/12	Outfall 001 MP001 03/22/12	Outfall 001 MP001 04/09/12	Outfall 001 MP001 05/10/12	Outfall 001 MP001 06/04/12	Outfall 001 MP001 09/10/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
o-Xylene	ug/L	41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Styrene	ug/L	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	NA
Toluene	ug/L	270	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Trichloroethene	ug/L	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/12/11	Outfall 001 MP001 11/02/11	Outfall 001 MP001 12/13/11	Outfall 001 MP001 01/03/12	Outfall 001 MP001 02/06/12	Outfall 001 MP001 03/22/12	Outfall 001 MP001 04/09/12	Outfall 001 MP001 05/10/12	Outfall 001 MP001 06/04/12	Outfall 001 MP001 09/10/12
bis(2-Chloroethyl)ether	ug/L	1	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	3
Barium	ug/L	1,308	25	80	87	96	104	90	89	69	75	56
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	12	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	11
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	37	3 U	10	6	14	8	4	3 U	3 U	3 U
Manganese	ug/L	4,500	43	7	7	7	5 U	5 U	5 U	5 U	5 U	10
Mercury	ng/L	1.3	**210(GSI)**	**3.1(GSI)**	**1.6(GSI)**	0.51 O	0.50 UO	0.81 O	**2.4 O(GSI)**	**2.6 O(GSI)**	1.2 O	**6.7 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/12/11	Outfall 001 MP001 11/02/11	Outfall 001 MP001 12/13/11	Outfall 001 MP001 01/03/12	Outfall 001 MP001 02/06/12	Outfall 001 MP001 03/22/12	Outfall 001 MP001 04/09/12	Outfall 001 MP001 05/10/12	Outfall 001 MP001 06/04/12	Outfall 001 MP001 09/10/12
Nickel	ug/L	120	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U
Thallium	ug/L	3.7	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Titanium	ug/L	- -	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	31	28	7	14	5 U	5 U	5	10	5 U	**704(GSI)**
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	32,000	1,000 U	4,000	3,000	3,000	4,000	9,000	2,000	5,000	19,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/22/12	Outfall 001 MP001 11/19/12	Outfall 001 MP001 12/18/12	Outfall 002 MP002 04/01/10	Outfall 002 MP002 09/20/10	Outfall 002 MP002 10/27/10	Outfall 002 MP002 11/22/10	Outfall 002 MP002 12/20/10	Outfall 002 MP002 01/26/11	Outfall 002 MP002 02/24/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	13	10 [10]	12	5	11	11	9
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	NA	NA	NA	23	19 [19]	14	4	21	25	17
1,1-Dichloroethene	ug/L	130	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	NA	NA	NA	30 U	30 U [30 U]	30 U	30 U	30 U	30 U	25 U
2-Hexanone	ug/L	- -	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	NA	NA	NA	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	NA	NA	NA	23	16 [15]	9	5 U	20	17	19
Chloroform	ug/L	350	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	9	10 [10]	5	2	11	12	9
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	NA	NA	NA	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	NA	NA	NA	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/22/12	Outfall 001 MP001 11/19/12	Outfall 001 MP001 12/18/12	Outfall 002 MP002 04/01/10	Outfall 002 MP002 09/20/10	Outfall 002 MP002 10/27/10	Outfall 002 MP002 11/22/10	Outfall 002 MP002 12/20/10	Outfall 002 MP002 01/26/11	Outfall 002 MP002 02/24/11
n-Propylbenzene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	90 U	90 U [90 U]	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	NA	NA	NA	2	2 [2]	1	1 U	2	3	3
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	NA	NA	NA	2	2 [2]	1	1 U	2	1	2
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	30 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	30 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	30 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	30 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	30 U	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/22/12	Outfall 001 MP001 11/19/12	Outfall 001 MP001 12/18/12	Outfall 002 MP002 04/01/10	Outfall 002 MP002 09/20/10	Outfall 002 MP002 10/27/10	Outfall 002 MP002 11/22/10	Outfall 002 MP002 12/20/10	Outfall 002 MP002 01/26/11	Outfall 002 MP002 02/24/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	6	1 U [1 U]	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	2 U	2 U	**11(GSI)**	10 [9]	**18(GSI)**	**47(GSI)**	**224(GSI)**	**19(GSI)**	10
Barium	ug/L	1,308	45	60	61	521	449 [439]	650	307	1,140	534	454
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	0.8 U [0.8 U]	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U [0.5 U]	0.5	0.8	1.5	0.8	1.8
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	**18(GSI)**	**27(GSI)**	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	8	5 U	5 U
Copper	ug/L	21.6	4 U	4 U	4 U	1 U	1 U [1 U]	14	**69(GSI)**	**161(GSI)**	10	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	**11(GSI)**	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	4,940	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	5	9	3 U	1 U	1 U [1 U]	4	**53(GSI)**	**129(GSI)**	12	8
Manganese	ug/L	4,500	5 U	5 U	5 U	890	553 [550]	904	1,400	3,470	945	689
Mercury	ng/L	1.3	**1.4 O(GSI)**	0.50 O	**1.5 O(GSI)**	0.50 U	**1.21 [1.45(GSI)]**	**2.3(GSI)**	**9.8(GSI)**	**57(GSI)**	0.81	0.52

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 001 MP001 10/22/12	Outfall 001 MP001 11/19/12	Outfall 001 MP001 12/18/12	Outfall 002 MP002 04/01/10	Outfall 002 MP002 09/20/10	Outfall 002 MP002 10/27/10	Outfall 002 MP002 11/22/10	Outfall 002 MP002 12/20/10	Outfall 002 MP002 01/26/11	Outfall 002 MP002 02/24/11
Nickel	ug/L	120	5 U	5 U	5 U	5 U	5 U [5 U]	5	15	13	5 U	5 U
Selenium	ug/L	5	5 U	5 U	5 U	1	5 U [5 U]	5	5 U	5 U	5 U	**7(GSI)**
Silver	ug/L	0.2	0.2 U	0.2 U	0.2 U	**1.4(GSI)**	0.5 U [0.5 U]	0.5 U	**0.6(GSI)**	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	2 U	**14(GSI)**	2 U	1 U	0.4 U [0.4 U]	1 U	1 U	1 U	1 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U [4 U]	4 U	12	13	4 U	4 U
Zinc	ug/L	260	5 U	6	8	8	13 [13]	68	**335(GSI)**	**1,290(GSI)**	35	5 U
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	1,000 U	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	4,000	3,000	2,000	NA	NA	NA	NA	NA	NA	7,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	6
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	6
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	682
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.51 U
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6(GSI)**
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 03/24/11	Outfall 002 MP002 04/29/11	Outfall 002 MP002 05/31/11	Outfall 002 MP002 06/27/11	Outfall 002 MP002 07/14/11	Outfall 002 MP002 08/15/11	Outfall 002 MP002 09/14/11	Outfall 002 MP002 10/12/11	Outfall 002 MP002 11/02/11	Outfall 002 MP002 12/13/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,1,1-Trichloroethane	ug/L	89	6 [6]	8	4	4	5	22 [29]	5	5 [5]	5 [5]	5 [5]
1,1,2,2-Tetrachloroethane	ug/L	78	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,1,2-Trichloroethane	ug/L	330	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,1-Dichloroethane	ug/L	740	12 [12]	8	8	8	13	13 [14]	8	12 [11]	11 [11]	9 [10]
1,1-Dichloroethene	ug/L	130	1 U [1 U]	1 U	1 U	1 U	1 U	1 [2]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2,3-Trichlorobenzene	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
1,2,3-Trichloropropane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2,3-Trimethylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2,4-Trichlorobenzene	ug/L	99	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
1,2,4-Trimethylbenzene	ug/L	17	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
1,2-Dibromoethane	ug/L	5.7	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2-Dichlorobenzene	ug/L	13	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2-Dichloroethane	ug/L	360	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2-Dichloropropane	ug/L	230	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,3,5-Trimethylbenzene	ug/L	45	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,3-Dichlorobenzene	ug/L	28	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,4-Dichlorobenzene	ug/L	17	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
2-Butanone	ug/L	2,200	25 U [25 U]	25 U	25 U	25 U	25 U	25 U [25 U]	25 U	25 U [25 U]	25 U [25 U]	25 U [25 U]
2-Hexanone	ug/L	- -	50 U [50 U]	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	50 U [50 U]	50 U [50 U]
2-Methylnaphthalene	ug/L	19	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
4-Methyl-2-pentanone	ug/L	- -	50 U [50 U]	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	50 U [50 U]	50 U [50 U]
Acetone	ug/L	1,700	50 U [50 U]	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	50 U [50 U]	50 U [50 U]
Acrylonitrile	ug/L	2	2 U [2 U]	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]	2 U [2 U]	2 U [2 U]
Benzene	ug/L	200	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromobenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromochloromethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromodichloromethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromoform	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromomethane	ug/L	35	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Carbon Disulfide	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Carbon Tetrachloride	ug/L	45	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chlorobenzene	ug/L	25	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chloroethane	ug/L	1,100	15 [14]	9	12	15	16	12 [11]	8	14 [14]	14 [14]	13 [15]
Chloroform	ug/L	350	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chloromethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
cis-1,2-Dichloroethene	ug/L	620	6 [6]	3	5	5	8	8 [7]	5	10 [10]	9 [9]	19 [20]
cis-1,3-Dichloropropene	ug/L	9	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Dibromochloromethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Dibromomethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Dichlorodifluoromethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Diethyl ether	ug/L	- -	10 U [10 U]	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U [10 U]	10 U [10 U]	10 U [10 U]
Ethylbenzene	ug/L	18	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Hexachloroethane	ug/L	6.7	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Iodomethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Isopropylbenzene	ug/L	28	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
m&p-Xylene	ug/L	41	2 U [2 U]	2 U	2	3	2 U	2 U [2 U]	2 U	2 U [2 U]	2 U [2 U]	2 U [2 U]
Methyl tert-butyl ether	ug/L	7,100	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Methylene Chloride	ug/L	1,500	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Naphthalene	ug/L	11	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
n-Butylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 03/24/11	Outfall 002 MP002 04/29/11	Outfall 002 MP002 05/31/11	Outfall 002 MP002 06/27/11	Outfall 002 MP002 07/14/11	Outfall 002 MP002 08/15/11	Outfall 002 MP002 09/14/11	Outfall 002 MP002 10/12/11	Outfall 002 MP002 11/02/11	Outfall 002 MP002 12/13/11
n-Propylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
o-Xylene	ug/L	41	1 U [1 U]	1 U	1 U	1	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
p-Isopropyltoluene	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
sec-Butylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Styrene	ug/L	80	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
tert-Butylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Tetrachloroethene	ug/L	60	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Tetrahydrofuran	ug/L	11,000	90 U [90 U]	90 U	90 U	90 U	90 U	90 U [90 U]	90 U	90 U [90 U]	90 U [90 U]	90 U [90 U]
Toluene	ug/L	270	1 U [1 U]	1 U	1 U	4	1 U	1 [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
trans-1,2-Dichloroethene	ug/L	1,500	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
trans-1,3-Dichloropropene	ug/L	9	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Trichloroethene	ug/L	200	2 [2]	2	3	2	3	2 [2]	1 U	2 [2]	2 [2]	4 [4]
Trichlorofluoromethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Vinyl Chloride	ug/L	13	1 U [1]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 [1]
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	4 U [4 U]	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U [25 U]	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U [25 U]	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U [25 U]	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U [25 U]	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U [25 U]	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U [1]	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U [1]	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 03/24/11	Outfall 002 MP002 04/29/11	Outfall 002 MP002 05/31/11	Outfall 002 MP002 06/27/11	Outfall 002 MP002 07/14/11	Outfall 002 MP002 08/15/11	Outfall 002 MP002 09/14/11	Outfall 002 MP002 10/12/11	Outfall 002 MP002 11/02/11	Outfall 002 MP002 12/13/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U [1]	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	4 U [4 U]	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Arsenic	ug/L	10	6 [7]	5	6	6	7	10 [10]	7	**11(GSI) [11(GSI)]**	**16(GSI) [11(GSI)]**	9 [9]
Barium	ug/L	1,308	231 [234]	196	254	222	311	298 [298]	148	317 [319]	332 [310]	307 [307]
Beryllium	ug/L	26	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]
Cadmium	ug/L	4.5	1.4 [1.5]	0.5 U	0.5 U	0.5 U	0.5 U	0.7 [0.7]	0.5 U	0.5 U [0.5 U]	0.5 U [0.5 U]	0.5 U [0.5 U]
Chromium Total	ug/L	11	5 U [5 U]	5 U	5 U	5 U	11	5 U [5 U]	5 U	**11 [12(GSI)]**	5 U [5 U]	5 U [5 U]
Cobalt	ug/L	100	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Copper	ug/L	21.6	8 [8]	14	6	4 U	5	4 U [4 U]	16	4 U [4 U]	**230(GSI) [148(GSI)]**	4 U [4 U]
Cyanide (total)	ug/L	5.2	5 U [5 U]	5 U	5 U	5 U	5 U	**10(GSI) [7(GSI)]**	5 U	5 U [5 U]	**7(GSI) [8(GSI)]**	**20(GSI) [5 U]**
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	14 [13]	17	6	3 U	3 U	15 [13]	28	3 U [3 U]	12 [4]	6 [5]
Manganese	ug/L	4,500	394 [394]	346	454	406	477	529 [527]	467	523 [528]	779 [565]	590 [595]
Mercury	ng/L	1.3	**5.6(GSI) [5.1(GSI)]**	**4.6(GSI)**	**2.7(GSI)**	**88(GSI)**	**2.0(GSI)**	**2.3(GSI)**	**6.9(GSI)**	**11(GSI)**	**7.5(GSI)**	1.3

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 03/24/11	Outfall 002 MP002 04/29/11	Outfall 002 MP002 05/31/11	Outfall 002 MP002 06/27/11	Outfall 002 MP002 07/14/11	Outfall 002 MP002 08/15/11	Outfall 002 MP002 09/14/11	Outfall 002 MP002 10/12/11	Outfall 002 MP002 11/02/11	Outfall 002 MP002 12/13/11
Nickel	ug/L	120	5 U [5 U]	5 U	5 U	5 U	9	5 U [5 U]	5 U	8 [8]	5 U [5 U]	5 U [6]
Selenium	ug/L	5	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]
Silver	ug/L	0.2	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	**0.6(GSI)**	0.5 U [0.5 U]	0.5 U	0.5 U [0.5 U]	0.5 U [0.5 U]	0.5 U [0.5 U]
Thallium	ug/L	3.7	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	2 U	1 U [1 U]	2 U [2 U]	2 U [2 U]
Titanium	ug/L	- -	NA	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U [20 U]	20 U [20 U]	NA
Vanadium	ug/L	27	4 U [4 U]	4 U	4 U	4 U	4 U	4 U [7]	9	4 U [4 U]	4 U [4 U]	4 U [4 U]
Zinc	ug/L	260	28 [28]	29	15	13	8	8 [8]	21	5 U [5 U]	24 [5 U]	5 U [5 U]
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	11,000 [13,000]	24,000	11,000	32,000	8,000	12,000 [12,000]	914,000	16,000 [16,000]	386,000 [68,000]	13,000 [9,000]
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 01/03/12	Outfall 002 MP002 02/06/12	Outfall 002 MP002 03/22/12	Outfall 002 MP002 04/09/12	Outfall 002 MP002 05/10/12	Outfall 002 MP002 06/04/12	Outfall 002 MP002 07/09/12	Outfall 002 MP002 08/06/12	Outfall 002 MP002 09/10/12	Outfall 002 MP002 10/22/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	7	4	4	4 [4]	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	10	8	8	11 [11]	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	25 U	25 U	25 U	25 U [25 U]	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U [50 U]	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U [50 U]	NA	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U [50 U]	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U [2 U]	NA	NA	NA	NA	NA	NA
Benzene	ug/L	200	1 U	1 U	2	1 U [1 U]	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	11	9	12	12 [12]	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	350	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	24	29	62	48 [48]	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U [10 U]	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	1 U	1 U	2	1 U [1 U]	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	2 U	2 U	4	2 U [2 U]	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 01/03/12	Outfall 002 MP002 02/06/12	Outfall 002 MP002 03/22/12	Outfall 002 MP002 04/09/12	Outfall 002 MP002 05/10/12	Outfall 002 MP002 06/04/12	Outfall 002 MP002 07/09/12	Outfall 002 MP002 08/06/12	Outfall 002 MP002 09/10/12	Outfall 002 MP002 10/22/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	1 U	1 U	2	1 U [1 U]	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Styrene	ug/L	80	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	1 U	1	4	2 [2]	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U [90 U]	NA	NA	NA	NA	NA	NA
Toluene	ug/L	270	1 U	1 U	3	1 U [1 U]	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	4	4	8	7 [6]	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	1	2	3	2 [2]	NA	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 01/03/12	Outfall 002 MP002 02/06/12	Outfall 002 MP002 03/22/12	Outfall 002 MP002 04/09/12	Outfall 002 MP002 05/10/12	Outfall 002 MP002 06/04/12	Outfall 002 MP002 07/09/12	Outfall 002 MP002 08/06/12	Outfall 002 MP002 09/10/12	Outfall 002 MP002 10/22/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	**0.064 O(GSI)**	**0.051 O(GSI)**
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	NA	NA
Arsenic	ug/L	10	10	9	9	**12(GSI) [9]**	9	9	10	9	8	**47(GSI)**
Barium	ug/L	1,308	300	273	293	298 [280]	231	NA	NA	NA	NA	NA
Beryllium	ug/L	26	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	NA	NA
Cadmium	ug/L	4.5	0.5 U	0.5	0.5 U	0.5 U [0.5 U]	0.5 U	NA	NA	NA	NA	NA
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	**28(GSI)**
Cobalt	ug/L	100	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	NA	NA
Copper	ug/L	21.6	4	4 U	4 U	10 [4 U]	**40(GSI)**	7	4 U	4 U	21	**124(GSI)**
Cyanide (total)	ug/L	5.2	**7(GSI)**	5 U	**9(GSI)**	**9(GSI) [10(GSI)]**	**9(GSI)**	5 U	5 U	**6(GSI)**	**8(GSI)**	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	7	9	6	10 [3 U]	8	NA	3 U	NA	NA	**80(GSI)**
Manganese	ug/L	4,500	554	542	777	764 [601]	673	NA	NA	NA	NA	NA
Mercury	ng/L	1.3	**3.0 O(GSI)**	**2.9 O(GSI)**	**1.6 O(GSI)**	**3.1 O(GSI)**	**1.6 O(GSI)**	**29 O(GSI)**	**8.4 O(GSI)**	0.94	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 01/03/12	Outfall 002 MP002 02/06/12	Outfall 002 MP002 03/22/12	Outfall 002 MP002 04/09/12	Outfall 002 MP002 05/10/12	Outfall 002 MP002 06/04/12	Outfall 002 MP002 07/09/12	Outfall 002 MP002 08/06/12	Outfall 002 MP002 09/10/12	Outfall 002 MP002 10/22/12
Nickel	ug/L	120	5 U	5 U	5 U	5 U [5 U]	5	NA	NA	NA	NA	NA
Selenium	ug/L	5	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.2 U	0.2 U	**0.3(GSI)**	0.2 U	**0.4(GSI)**
Thallium	ug/L	3.7	2 U	2 U	2 U	2 U [2 U]	2 U	NA	NA	NA	NA	NA
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U [4 U]	4 U	NA	4 U	NA	NA	13
Zinc	ug/L	260	32	5 U	7	27 [6]	40	NA	NA	NA	NA	NA
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	22,000	10,000	8,000	22,000 [18,000]	36,000	19,000	166,000	13,000	153,000	687,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 11/19/12	Outfall 002 MP002 12/18/12	Outfall 003 MP003 03/31/10	Outfall 003 MP003 09/20/10	Outfall 003 MP003 10/27/10	Outfall 003 MP003 11/22/10	Outfall 003 MP003 12/20/10	Outfall 003 MP003 01/26/11	Outfall 003 MP003 02/24/11	Outfall 003 MP003 03/24/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	NA	NA	30 U	30 U	30 U	30 U	30 U	30 U	25 U	25 U
2-Hexanone	ug/L	- -	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	NA	NA	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	9	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 11/19/12	Outfall 002 MP002 12/18/12	Outfall 003 MP003 03/31/10	Outfall 003 MP003 09/20/10	Outfall 003 MP003 10/27/10	Outfall 003 MP003 11/22/10	Outfall 003 MP003 12/20/10	Outfall 003 MP003 01/26/11	Outfall 003 MP003 02/24/11	Outfall 003 MP003 03/24/11
n-Propylbenzene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	NA	NA	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	- -	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	30 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	30 U	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	30 U	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	30 U	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	30 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 11/19/12	Outfall 002 MP002 12/18/12	Outfall 003 MP003 03/31/10	Outfall 003 MP003 09/20/10	Outfall 003 MP003 10/27/10	Outfall 003 MP003 11/22/10	Outfall 003 MP003 12/20/10	Outfall 003 MP003 01/26/11	Outfall 003 MP003 02/24/11	Outfall 003 MP003 03/24/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.2	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	NA	NA	3	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	**11(GSI)**	9	2	2 U	3	4	3	3	2 U	3
Barium	ug/L	1,308	NA	NA	115	67	71	169	155	155	60	83
Beryllium	ug/L	26	NA	NA	1 U	0.8 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	NA	NA	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U	7	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	4 U	2	2	4 U	4	4 U	4 U	7	8
Cyanide (total)	ug/L	5.2	**8(GSI)**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**10(GSI)**	5 U
Iron	ug/L	- -	NA	NA	810	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	NA	NA	1 U	1 U	4	3 U	7	3 U	17	28
Manganese	ug/L	4,500	NA	NA	231	61	73	213	205	253	88	704
Mercury	ng/L	1.3	**1.7 O(GSI)**	**1.8 O(GSI)**	0.50 U	**1.35(GSI)**	**5.8(GSI)**	**3.2(GSI)**	0.66	0.92	**3.6(GSI)**	**4.1(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 002 MP002 11/19/12	Outfall 002 MP002 12/18/12	Outfall 003 MP003 03/31/10	Outfall 003 MP003 09/20/10	Outfall 003 MP003 10/27/10	Outfall 003 MP003 11/22/10	Outfall 003 MP003 12/20/10	Outfall 003 MP003 01/26/11	Outfall 003 MP003 02/24/11	Outfall 003 MP003 03/24/11
Nickel	ug/L	120	NA	NA	5 U	5 U	5 U	9	5 U	5 U	5 U	5 U
Selenium	ug/L	5	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	**0.3(GSI)**	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	NA	NA	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	NA	NA	4 U	4 U	4 U	7	4 U	4 U	4 U	4 U
Zinc	ug/L	260	NA	NA	9	8	27	30	15	29	50	82
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	1,000 U	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	8,000	11,000	NA	NA	NA	NA	NA	NA	15,000	22,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	50	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	13	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	73	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	0.91	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	25	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 04/29/11	Outfall 003 MP003 05/31/11	Outfall 003 MP003 06/27/11	Outfall 003 MP003 07/14/11	Outfall 003 MP003 08/15/11	Outfall 003 MP003 09/14/11	Outfall 003 MP003 10/12/11	Outfall 003 MP003 11/02/11	Outfall 003 MP003 12/13/11	Outfall 003 MP003 01/03/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	1 U
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 04/29/11	Outfall 003 MP003 05/31/11	Outfall 003 MP003 06/27/11	Outfall 003 MP003 07/14/11	Outfall 003 MP003 08/15/11	Outfall 003 MP003 09/14/11	Outfall 003 MP003 10/12/11	Outfall 003 MP003 11/02/11	Outfall 003 MP003 12/13/11	Outfall 003 MP003 01/03/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	1	2	2	1	1 U	1 U	1 U	1	2	1 U
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	4 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 04/29/11	Outfall 003 MP003 05/31/11	Outfall 003 MP003 06/27/11	Outfall 003 MP003 07/14/11	Outfall 003 MP003 08/15/11	Outfall 003 MP003 09/14/11	Outfall 003 MP003 10/12/11	Outfall 003 MP003 11/02/11	Outfall 003 MP003 12/13/11	Outfall 003 MP003 01/03/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	4 U	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	3	3	7	5	7	4	4	8	5
Barium	ug/L	1,308	71	125	155	221	151	278	164	173	186	151
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1 U	1.7	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U
Chromium Total	ug/L	11	5 U	5 U	5 U	10	5 U	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4	4	4 U	9	8	4 U	4 U	4 U	8	5
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**7(GSI)**	**10(GSI)**	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	9	6	3 U	11	26	34	3 U	9	20	9
Manganese	ug/L	4,500	91	197	268	1,450	852	436	229	224	686	421
Mercury	ng/L	1.3	**6.3(GSI)**	**2.5(GSI)**	**1.8(GSI)**	1.2	**3.3(GSI)**	**8.3(GSI)**	**2.5(GSI)**	**17(GSI)**	**1.7(GSI)**	**1.7 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 04/29/11	Outfall 003 MP003 05/31/11	Outfall 003 MP003 06/27/11	Outfall 003 MP003 07/14/11	Outfall 003 MP003 08/15/11	Outfall 003 MP003 09/14/11	Outfall 003 MP003 10/12/11	Outfall 003 MP003 11/02/11	Outfall 003 MP003 12/13/11	Outfall 003 MP003 01/03/12
Nickel	ug/L	120	5 U	5 U	7	11	7	15	11	8	10	10
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	**0.7(GSI)**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	2 U	2 U
Titanium	ug/L	- -	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	50	32	14	73	44	14	11	9	50	42
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	6,000	6,000	4,000	7,000	39,000	5,000	3,000	29,000	18,000	7,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 02/06/12	Outfall 003 MP003 03/22/12	Outfall 003 MP003 04/09/12	Outfall 003 MP003 05/10/12	Outfall 003 MP003 06/04/12	Outfall 003 MP003 07/09/12	Outfall 003 MP003 08/06/12	Outfall 003 MP003 09/10/12	Outfall 003 MP003 10/22/12	Outfall 003 MP003 11/19/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	25 U	25 U	25 U	25 U	25 U [25 U]	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U [50 U]	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U [50 U]	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U	50 U [50 U]	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U	2 U [2 U]	NA	NA	NA	NA	NA
Benzene	ug/L	200	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Chloroform	ug/L	350	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	1	1	1	1 U	1 [1]	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U	10 U [10 U]	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	2 U	2 U	2 U	2 U	2 U [2 U]	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 02/06/12	Outfall 003 MP003 03/22/12	Outfall 003 MP003 04/09/12	Outfall 003 MP003 05/10/12	Outfall 003 MP003 06/04/12	Outfall 003 MP003 07/09/12	Outfall 003 MP003 08/06/12	Outfall 003 MP003 09/10/12	Outfall 003 MP003 10/22/12	Outfall 003 MP003 11/19/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Styrene	ug/L	80	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U	90 U [90 U]	NA	NA	NA	NA	NA
Toluene	ug/L	270	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	2	1	2	1 U	1 [1]	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 02/06/12	Outfall 003 MP003 03/22/12	Outfall 003 MP003 04/09/12	Outfall 003 MP003 05/10/12	Outfall 003 MP003 06/04/12	Outfall 003 MP003 07/09/12	Outfall 003 MP003 08/06/12	Outfall 003 MP003 09/10/12	Outfall 003 MP003 10/22/12	Outfall 003 MP003 11/19/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U
Arsenic	ug/L	10	4	3	7	3	3 [3]	**14(GSI) [4]**	4 [4]	5	3	5
Barium	ug/L	1,308	135	150	170	97	139 [136]	265 [183]	156 [164]	153	133	208
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U [0.5 U]	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	4 U	6	7	4 U [4 U]	16 [4 U]	4 U [4 U]	5	4 U	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	5 [5]	**8(GSI)**	5 U	**6(GSI)**
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	15	8	6	3 U	3 U [3 U]	22 [3 U]	6 [6]	5	13	14
Manganese	ug/L	4,500	234	341	734	143	227 [224]	2,140 [275]	242 [243]	238	182	376
Mercury	ng/L	1.3	1.2 O	1.3 O	1.0 O	**3.4 O(GSI)**	**1.4 O(GSI)**	**30 O(GSI)**	1.1	**4.3 O(GSI)**	**1.5 O(GSI)**	**7.9 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 02/06/12	Outfall 003 MP003 03/22/12	Outfall 003 MP003 04/09/12	Outfall 003 MP003 05/10/12	Outfall 003 MP003 06/04/12	Outfall 003 MP003 07/09/12	Outfall 003 MP003 08/06/12	Outfall 003 MP003 09/10/12	Outfall 003 MP003 10/22/12	Outfall 003 MP003 11/19/12
Nickel	ug/L	120	7	8	9	9	10 [10]	19 [16]	13 [13]	9	10	16
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U [0.2 U]	0.2 U [0.2 U]	**0.3(GSI) [0.2 U]**	0.2 U	0.2 U	0.2 U
Thallium	ug/L	3.7	2 U	2 U	2 U	2 U	2 U [2 U]	2 U [2 U]	2 U [2 U]	2 U	2 U	3
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U [4 U]	4 [4 U]	4 U [4 U]	4 U	4 U	4 U
Zinc	ug/L	260	11	8	32	16	7 [7]	79 [8]	15 [7]	9	16	10
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	4,000	2,000	87,000	6,000	8,000 [9,000]	21,000 [6,000]	10,000 [35,000]	9,000	9,000	3,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 12/18/12	Outfall 004 MP004 03/31/10	Outfall 004 MP004 09/20/10	Outfall 004 MP004 10/27/10	Outfall 004 MP004 11/22/10	Outfall 004 MP004 12/20/10	Outfall 004 MP004 01/26/11	Outfall 005 MP005 03/31/10	Outfall 005 MP005 09/20/10	Outfall 005 MP005 10/27/10
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,1-Dichloroethane	ug/L	740	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,1-Dichloroethene	ug/L	130	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2-Dichloroethane	ug/L	360	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,2-Dichloropropane	ug/L	230	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
2-Butanone	ug/L	2,200	NA	30 U	30 U	30 U	30 U	30 U [30 U]	30 U	NA	NA	NA
2-Hexanone	ug/L	- -	NA	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	NA	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	NA	NA	NA
Acetone	ug/L	1,700	NA	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	NA	NA	NA
Acrylonitrile	ug/L	2	NA	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	NA	NA	NA
Benzene	ug/L	200	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Bromobenzene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Bromochloromethane	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Bromodichloromethane	ug/L	- -	NA	1 U	1 U	1 U	1	1 U [1 U]	1 U	NA	NA	NA
Bromoform	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Bromomethane	ug/L	35	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Carbon Disulfide	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Carbon Tetrachloride	ug/L	45	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Chlorobenzene	ug/L	25	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Chloroethane	ug/L	1,100	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Chloroform	ug/L	350	NA	1 U	1 U	1 U	2	1 U [1 U]	1 U	NA	NA	NA
Chloromethane	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	NA	2	2	3	1 U	3 [3]	1 U	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Dibromochloromethane	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Dibromomethane	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Diethyl ether	ug/L	- -	NA	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	NA	NA	NA
Ethylbenzene	ug/L	18	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Iodomethane	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Isopropylbenzene	ug/L	28	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
m&p-Xylene	ug/L	41	NA	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Methylene Chloride	ug/L	1,500	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
Naphthalene	ug/L	11	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
n-Butylbenzene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 12/18/12	Outfall 004 MP004 03/31/10	Outfall 004 MP004 09/20/10	Outfall 004 MP004 10/27/10	Outfall 004 MP004 11/22/10	Outfall 004 MP004 12/20/10	Outfall 004 MP004 01/26/11	Outfall 005 MP005 03/31/10	Outfall 005 MP005 09/20/10	Outfall 005 MP005 10/27/10
n-Propylbenzene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
o-Xylene	ug/L	41	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA
sec-Butylbenzene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Styrene	ug/L	80	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
tert-Butylbenzene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Tetrachloroethene	ug/L	60	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	NA	90 U	90 U	90 U	90 U	90 U [90 U]	90 U	NA	NA	NA
Toluene	ug/L	270	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Trichloroethene	ug/L	200	NA	1	4	6	1	4 [4]	1 U	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA
Vinyl Chloride	ug/L	13	NA	1 U	1 U	1 U	1 U	1 [1]	1 U	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	4 U	NA	NA	NA	NA	NA	4 U	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	10 U	NA	NA	NA	NA	NA	10 U	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	30 U	NA	NA	NA	NA	NA	30 U	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2-Chlorophenol	ug/L	18	NA	10 U	NA	NA	NA	NA	NA	10 U	NA	NA
2-Methylnaphthalene	ug/L	19	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
2-Methylphenol	ug/L	30	NA	10 U	NA	NA	NA	NA	NA	10 U	NA	NA
2-Nitroaniline	ug/L	- -	NA	30 U	NA	NA	NA	NA	NA	30 U	NA	NA
2-Nitrophenol	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
3&4-Methylphenol	ug/L	30	NA	20 U	NA	NA	NA	NA	NA	20 U	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
3-Nitroaniline	ug/L	- -	NA	30 U	NA	NA	NA	NA	NA	30 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	20 U	NA	NA	NA	NA	NA	20 U	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
4-Chloroaniline	ug/L	- -	NA	10 U	NA	NA	NA	NA	NA	10 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
4-Nitroaniline	ug/L	- -	NA	30 U	NA	NA	NA	NA	NA	30 U	NA	NA
4-Nitrophenol	ug/L	- -	NA	30 U	NA	NA	NA	NA	NA	30 U	NA	NA
Acenaphthene	ug/L	38	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Acenaphthylene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Anthracene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 12/18/12	Outfall 004 MP004 03/31/10	Outfall 004 MP004 09/20/10	Outfall 004 MP004 10/27/10	Outfall 004 MP004 11/22/10	Outfall 004 MP004 12/20/10	Outfall 004 MP004 01/26/11	Outfall 005 MP005 03/31/10	Outfall 005 MP005 09/20/10	Outfall 005 MP005 10/27/10
bis(2-Chloroethyl)ether	ug/L	1	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Butylbenzylphthalate	ug/L	67	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Chrysene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	2 U	NA	NA	NA	NA	NA	2 U	NA	NA
Dibenzofuran	ug/L	4	NA	4 U	NA	NA	NA	NA	NA	4 U	NA	NA
Diethylphthalate	ug/L	110	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Dimethylphthalate	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Fluoranthene	ug/L	1.6	NA	1 U	NA	NA	NA	NA	NA	1 U	NA	NA
Fluorene	ug/L	12	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	10 U	NA	NA	NA	NA	NA	10 U	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachloroethane	ug/L	6.7	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	2 U	NA	NA	NA	NA	NA	2 U	NA	NA
Isophorone	ug/L	1,300	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Methylphenols, Total	ug/L	30	NA	10 U	NA	NA	NA	NA	NA	10 U	NA	NA
Naphthalene	ug/L	11	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Nitrobenzene	ug/L	180	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Pentachlorophenol	ug/L	1.8	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Phenanthrene	ug/L	2	NA	2 U	NA	NA	NA	NA	NA	2 U	NA	NA
Phenol	ug/L	450	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
Pyrene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	2	1 U	5 U	5 U	5 U [5 U]	5 U	1	1 U	5 U
Arsenic	ug/L	10	5	1	2 U	2	2 U	2 U [2 U]	5	6	7	5
Barium	ug/L	1,308	165	96	84	69	52	100 [98]	140	110	95	94
Beryllium	ug/L	26	1 U	1 U	0.8 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.8 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	1.6	0.2 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	**18(GSI)**	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	2	2	4 U	4	4 U [4 U]	**45(GSI)**	1 U	1 U	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	340	NA	NA	NA	NA	NA	1,510	NA	NA
Lead	ug/L	44	3 U	1 U	1 U	3 U	3 U	9 [3 U]	**109(GSI)**	1 U	1 U	3 U
Manganese	ug/L	4,500	288	117	27	33	93	54 [52]	1,070	173	126	126
Mercury	ng/L	1.3	**1.5 O(GSI)**	0.76	0.947	**3.0(GSI)**	**4.2(GSI)**	0.51 U [0.51 U]	**92(GSI)**	0.50 U	0.533	0.86

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 003 MP003 12/18/12	Outfall 004 MP004 03/31/10	Outfall 004 MP004 09/20/10	Outfall 004 MP004 10/27/10	Outfall 004 MP004 11/22/10	Outfall 004 MP004 12/20/10	Outfall 004 MP004 01/26/11	Outfall 005 MP005 03/31/10	Outfall 005 MP005 09/20/10	Outfall 005 MP005 10/27/10
Nickel	ug/L	120	13	5 U	5 U	5 U	5 U	5 U [5 U]	11	5 U	5 U	5 U
Selenium	ug/L	5	5 U	2	5 U	5 U	5 U	5 U [5 U]	5 U	1 U	5 U	5 U
Silver	ug/L	0.2	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	2 U	1 U	0.4 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.4 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U	4 U [4 U]	10	4 U	4 U	4 U
Zinc	ug/L	260	7	11	12	22	33	7 [10]	**486(GSI)**	8	7	15
Miscellaneous												
Oil and Grease	ug/L	- -	NA	1,000 U	NA	NA	NA	NA	NA	1,000 U	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	15,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 11/22/10	Outfall 005 MP005 12/20/10	Outfall 005 MP005 01/26/11	Outfall 005 MP005 02/24/11	Outfall 005 MP005 03/24/11	Outfall 005 MP005 04/29/11	Outfall 005 MP005 05/31/11	Outfall 005 MP005 06/27/11	Outfall 005 MP005 07/14/11	Outfall 005 MP005 08/15/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 11/22/10	Outfall 005 MP005 12/20/10	Outfall 005 MP005 01/26/11	Outfall 005 MP005 02/24/11	Outfall 005 MP005 03/24/11	Outfall 005 MP005 04/29/11	Outfall 005 MP005 05/31/11	Outfall 005 MP005 06/27/11	Outfall 005 MP005 07/14/11	Outfall 005 MP005 08/15/11
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 11/22/10	Outfall 005 MP005 12/20/10	Outfall 005 MP005 01/26/11	Outfall 005 MP005 02/24/11	Outfall 005 MP005 03/24/11	Outfall 005 MP005 04/29/11	Outfall 005 MP005 05/31/11	Outfall 005 MP005 06/27/11	Outfall 005 MP005 07/14/11	Outfall 005 MP005 08/15/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	**24(GSI)**	**54(GSI)**	**19(GSI) [123(GSI)]**	8	6	5	8	9	**11(GSI)**	9
Barium	ug/L	1,308	276	166	123 [267]	92	71	58	73	78	88	86
Beryllium	ug/L	26	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	1.5	0.5	0.5 U [0.6]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	**21(GSI)**	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	9	5 U
Cobalt	ug/L	100	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	**37(GSI)**	7	4 U [7]	4 U	4 U	5	4	4 U	4	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	**132(GSI)**	34	3 U [7]	11	18	6	4	3 U	6	17
Manganese	ug/L	4,500	2,560	784	229 [744]	165	145	127	195	189	201	123
Mercury	ng/L	1.3	1.3	0.56	0.52 [0.51 U]	0.76	**1.8(GSI)**	**8.1(GSI)**	**4.4(GSI)**	**8.1(GSI)**	**37(GSI)**	**2.9(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 11/22/10	Outfall 005 MP005 12/20/10	Outfall 005 MP005 01/26/11	Outfall 005 MP005 02/24/11	Outfall 005 MP005 03/24/11	Outfall 005 MP005 04/29/11	Outfall 005 MP005 05/31/11	Outfall 005 MP005 06/27/11	Outfall 005 MP005 07/14/11	Outfall 005 MP005 08/15/11
Nickel	ug/L	120	**245(GSI)**	5 U	5 U [5 U]	5 U	5 U	6	5	5 U	8	5 U
Selenium	ug/L	5	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	**0.8(GSI)**	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	20 U	20 U	20 U	20 U
Vanadium	ug/L	27	6	4 U	4 U [4 U]	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	**816(GSI)**	171	23 [196]	5 U	12	23	9	5	22	6
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	NA	NA	NA	6,000	1,000	12,000	7,000	5,000	4,000	6,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	5	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	88	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	10	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	157	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	0.51 U	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 09/14/11	Outfall 005 MP005 10/12/11	Outfall 005 MP005 10/13/11	Outfall 005 MP005 11/02/11	Outfall 005 MP005 12/13/11	Outfall 005 MP005 01/03/12	Outfall 005 MP005 02/06/12	Outfall 005 MP005 03/22/12	Outfall 005 MP005 04/09/12	Outfall 005 MP005 05/10/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 09/14/11	Outfall 005 MP005 10/12/11	Outfall 005 MP005 10/13/11	Outfall 005 MP005 11/02/11	Outfall 005 MP005 12/13/11	Outfall 005 MP005 01/03/12	Outfall 005 MP005 02/06/12	Outfall 005 MP005 03/22/12	Outfall 005 MP005 04/09/12	Outfall 005 MP005 05/10/12
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 09/14/11	Outfall 005 MP005 10/12/11	Outfall 005 MP005 10/13/11	Outfall 005 MP005 11/02/11	Outfall 005 MP005 12/13/11	Outfall 005 MP005 01/03/12	Outfall 005 MP005 02/06/12	Outfall 005 MP005 03/22/12	Outfall 005 MP005 04/09/12	Outfall 005 MP005 05/10/12
bis(2-Chloroethyl)ether	ug/L	1	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	**79(GSI)**	**131(GSI)**	NA	**17(GSI)**	**13(GSI)**	**39(GSI)**	9	**11(GSI)**	8	7
Barium	ug/L	1,308	256	170	NA	93	102	101	98	91	81	78
Beryllium	ug/L	26	1.6	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	2.2	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	7	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	7	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	**51(GSI)**	9	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	**377(GSI)**	30	NA	8	**191(GSI)**	8	10	7	3 U	3 U
Manganese	ug/L	4,500	2,950	547	NA	131	226	490	144	159	127	121
Mercury	ng/L	1.3	1.3	0.50 U	NA	**3.7(GSI)**	**8.7(GSI)**	**7.8 O(GSI)**	**8.6 O(GSI)**	1.1 O	0.50 UO	1.3 O

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 09/14/11	Outfall 005 MP005 10/12/11	Outfall 005 MP005 10/13/11	Outfall 005 MP005 11/02/11	Outfall 005 MP005 12/13/11	Outfall 005 MP005 01/03/12	Outfall 005 MP005 02/06/12	Outfall 005 MP005 03/22/12	Outfall 005 MP005 04/09/12	Outfall 005 MP005 05/10/12
Nickel	ug/L	120	103	6	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Selenium	ug/L	5	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	2 U	1 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Titanium	ug/L	- -	20	20 U	NA	20 U	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4	4	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	**668(GSI)**	58	NA	6	16	22	5 U	5 U	5 U	5 U
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	11,000	8,000	NA	13,000	59,000	36,000	5,000	40,000	5,000	6,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 06/04/12	Outfall 005 MP005 08/06/12	Outfall 005 MP005 09/10/12	Outfall 005 MP005 10/22/12	Outfall 005 MP005 11/19/12	Outfall 005 MP005 12/18/12	Outfall 006 MP006 03/31/10	Outfall 006 MP006 09/21/10	Outfall 006 MP006 10/27/10	Outfall 006 MP006 11/22/10
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	NA	NA	NA	NA	NA	NA	30 U	30 U	30 U	30 U
2-Hexanone	ug/L	- -	NA	NA	NA	NA	NA	NA	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	NA	NA	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	NA	NA	NA	NA	NA	NA	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	NA	NA	NA	NA	NA	NA	2 U	2 U	2 U	2 U
Benzene	ug/L	200	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 06/04/12	Outfall 005 MP005 08/06/12	Outfall 005 MP005 09/10/12	Outfall 005 MP005 10/22/12	Outfall 005 MP005 11/19/12	Outfall 005 MP005 12/18/12	Outfall 006 MP006 03/31/10	Outfall 006 MP006 09/21/10	Outfall 006 MP006 10/27/10	Outfall 006 MP006 11/22/10
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Styrene	ug/L	80	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	NA	NA	90 U	90 U	90 U	90 U
Toluene	ug/L	270	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 06/04/12	Outfall 005 MP005 08/06/12	Outfall 005 MP005 09/10/12	Outfall 005 MP005 10/22/12	Outfall 005 MP005 11/19/12	Outfall 005 MP005 12/18/12	Outfall 006 MP006 03/31/10	Outfall 006 MP006 09/21/10	Outfall 006 MP006 10/27/10	Outfall 006 MP006 11/22/10
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Total PCBs	ug/L	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	NA	NA	NA	NA	NA	NA	1	1 U	5 U	5 U
Arsenic	ug/L	10	9	8	**17(GSI)**	7	**314(GSI)**	**21(GSI)**	2	3	2	2
Barium	ug/L	1,308	NA	NA	NA	NA	NA	NA	85	89	80	95
Beryllium	ug/L	26	NA	NA	NA	NA	NA	NA	1 U	0.8 U	1 U	1 U
Cadmium	ug/L	4.5	NA	NA	NA	NA	NA	NA	0.2 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	NA	5 U	NA	5 U	NA	NA	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	4 U	4 U	4 U	**32(GSI)**	4 U	1	1	4 U	4 U
Cyanide (total)	ug/L	5.2	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	630	NA	NA	NA
Lead	ug/L	44	3 U	7	13	7	**99(GSI)**	9	1 U	1 U	3 U	3 U
Manganese	ug/L	4,500	115	104	NA	NA	NA	NA	214	170	170	806
Mercury	ng/L	1.3	**7.3 O(GSI)**	**1.4(GSI)**	**1.6 O(GSI)**	0.50 UO	0.70 O	0.70 O	**3.5(GSI)**	1.12	1.2	**6.0(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 005 MP005 06/04/12	Outfall 005 MP005 08/06/12	Outfall 005 MP005 09/10/12	Outfall 005 MP005 10/22/12	Outfall 005 MP005 11/19/12	Outfall 005 MP005 12/18/12	Outfall 006 MP006 03/31/10	Outfall 006 MP006 09/21/10	Outfall 006 MP006 10/27/10	Outfall 006 MP006 11/22/10
Nickel	ug/L	120	NA	5 U	NA	5 U	NA	NA	5 U	5 U	5 U	6
Selenium	ug/L	5	NA	NA	NA	NA	NA	NA	1 U	5 U	**10(GSI)**	5 U
Silver	ug/L	0.2	0.2 U	0.2 U	0.2 U	0.2	0.2	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	NA	NA	NA	NA	NA	NA	1 U	0.4 U	1 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	NA	NA	NA	NA	NA	NA	4 U	4 U	4 U	4 U
Zinc	ug/L	260	5 U	5 U	12	5 U	189	16	5 U	5 U	5 U	16
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	12,000	106,000	17,000	2,000	204,000	36,000	NA	NA	NA	NA
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 12/20/10	Outfall 006 MP006 01/26/11	Outfall 006 MP006 02/24/11	Outfall 006 MP006 03/24/11	Outfall 006 MP006 04/29/11	Outfall 006 MP006 05/31/11	Outfall 006 MP006 06/27/11	Outfall 006 MP006 07/14/11	Outfall 006 MP006 08/15/11	Outfall 006 MP006 09/14/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	30 U	30 U	25 U	25 U	25 U [25 U]	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 12/20/10	Outfall 006 MP006 01/26/11	Outfall 006 MP006 02/24/11	Outfall 006 MP006 03/24/11	Outfall 006 MP006 04/29/11	Outfall 006 MP006 05/31/11	Outfall 006 MP006 06/27/11	Outfall 006 MP006 07/14/11	Outfall 006 MP006 08/15/11	Outfall 006 MP006 09/14/11
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U	90 U [90 U]	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 12/20/10	Outfall 006 MP006 01/26/11	Outfall 006 MP006 02/24/11	Outfall 006 MP006 03/24/11	Outfall 006 MP006 04/29/11	Outfall 006 MP006 05/31/11	Outfall 006 MP006 06/27/11	Outfall 006 MP006 07/14/11	Outfall 006 MP006 08/15/11	Outfall 006 MP006 09/14/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	2 U	2 U	2 U	2 U [2 U]	2	2	2	3	3
Barium	ug/L	1,308	83	74	68	56	52 [49]	65	72	91	86	82
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	10	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	4 U	4 U	7	4 U [4 U]	4 U	4 U	12	4 U	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U	3 U	3 U	3 U	3 U [3 U]	3 U	3 U	13	3 U	3
Manganese	ug/L	4,500	360	249	373	176	234 [117]	235	242	288	209	97
Mercury	ng/L	1.3	0.77	0.61	**1.7(GSI)**	**1.7(GSI)**	**3.7(GSI) [3.2(GSI)]**	**1.8(GSI)**	**1.5(GSI)**	**200(GSI)**	**2.3(GSI)**	1.1

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 12/20/10	Outfall 006 MP006 01/26/11	Outfall 006 MP006 02/24/11	Outfall 006 MP006 03/24/11	Outfall 006 MP006 04/29/11	Outfall 006 MP006 05/31/11	Outfall 006 MP006 06/27/11	Outfall 006 MP006 07/14/11	Outfall 006 MP006 08/15/11	Outfall 006 MP006 09/14/11
Nickel	ug/L	120	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	6	5 U	5 U
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1	2 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	20 U	20 U	20 U	20 U	20 U
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U [4 U]	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	6	5 U	5 U	7	21 [21]	7	5 U	57	18	5 U
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	NA	NA	1,000	2,000	1,000 U [5,000]	5,000	1,000	71,000	4,000	1,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	65	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	3 U	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	262	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	0.60	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 10/12/11	Outfall 006 MP006 11/02/11	Outfall 006 MP006 12/13/11	Outfall 006 MP006 01/03/12	Outfall 006 MP006 02/06/12	Outfall 006 MP006 03/22/12	Outfall 006 MP006 04/09/12	Outfall 006 MP006 05/10/12	Outfall 006 MP006 06/04/12	Outfall 006 MP006 08/06/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U	1 U	1 U [1 U]	2	1 U	1 U	NA	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
2-Butanone	ug/L	2,200	25 U	25 U	25 U	25 U	25 U [25 U]	25 U	25 U	25 U	NA	NA
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	NA	NA
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	NA	NA
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	NA	NA
Benzene	ug/L	200	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloroethane	ug/L	1,100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Chloroform	ug/L	350	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
cis-1,2-Dichloroethene	ug/L	620	1 U	1 U	1 U	1 U	1 U [1 U]	1	1 U	1 U	NA	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	NA	NA
Ethylbenzene	ug/L	18	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
m&p-Xylene	ug/L	41	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	NA	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 10/12/11	Outfall 006 MP006 11/02/11	Outfall 006 MP006 12/13/11	Outfall 006 MP006 01/03/12	Outfall 006 MP006 02/06/12	Outfall 006 MP006 03/22/12	Outfall 006 MP006 04/09/12	Outfall 006 MP006 05/10/12	Outfall 006 MP006 06/04/12	Outfall 006 MP006 08/06/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
o-Xylene	ug/L	41	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Styrene	ug/L	80	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U	90 U [90 U]	90 U	90 U	90 U	NA	NA
Toluene	ug/L	270	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Trichloroethene	ug/L	200	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 10/12/11	Outfall 006 MP006 11/02/11	Outfall 006 MP006 12/13/11	Outfall 006 MP006 01/03/12	Outfall 006 MP006 02/06/12	Outfall 006 MP006 03/22/12	Outfall 006 MP006 04/09/12	Outfall 006 MP006 05/10/12	Outfall 006 MP006 06/04/12	Outfall 006 MP006 08/06/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Arsenic	ug/L	10	3	2	2	2 U	2 U [2 U]	2 U	2 U	2 U	2	3
Barium	ug/L	1,308	79	80	93	85	69 [86]	68	66	80	NA	NA
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	NA	NA
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Copper	ug/L	21.6	4 U	4 U	4 U	4 U	4 U [4 U]	4 U	4 U	4 U	NA	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U	3 U	4	3 U	3 U [3 U]	3 U	3 U	3 U	3 U	3 U
Manganese	ug/L	4,500	162	202	515	339	239 [253]	276	207	97	NA	NA
Mercury	ng/L	1.3	0.80	1.0	**2.7(GSI)**	0.93 O	1.00 O	0.97 O	**1.4 O(GSI)**	1.3 O	1.3 O	1.1

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 10/12/11	Outfall 006 MP006 11/02/11	Outfall 006 MP006 12/13/11	Outfall 006 MP006 01/03/12	Outfall 006 MP006 02/06/12	Outfall 006 MP006 03/22/12	Outfall 006 MP006 04/09/12	Outfall 006 MP006 05/10/12	Outfall 006 MP006 06/04/12	Outfall 006 MP006 08/06/12
Nickel	ug/L	120	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	NA	NA
Thallium	ug/L	3.7	1 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	NA	NA
Titanium	ug/L	- -	20 U	20 U	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U [4 U]	4 U	4 U	4 U	NA	NA
Zinc	ug/L	260	5 U	5 U	9	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	3,000	4,000	3,000	9,000	1,000 [34,000]	1,000	2,000	1,000 U	3,000	82,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 09/10/12	Outfall 006 MP006 10/22/12	Outfall 006 MP006 11/19/12	Outfall 006 MP006 12/18/12	Outfall 007 MP007 03/31/10	Outfall 007 MP007 09/21/10	Outfall 007 MP007 11/22/10	Outfall 007 MP007 02/24/11	Outfall 007 MP007 04/29/11	Outfall 007 MP007 05/31/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	1 U	1 U [1 U]	2	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	1	1 U [1 U]	1 U	1 U	1 U	4
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	NA	NA	NA	NA	30 U	30 U [30 U]	30 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	NA	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	NA	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	NA	NA	NA	NA	2 U	2 U [2 U]	2 U	2 U	2 U	2 U
Benzene	ug/L	200	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	1	1 U [1 U]	2	1 U	1 U	2
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	NA	NA	NA	NA	2 U	2 U [2 U]	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 09/10/12	Outfall 006 MP006 10/22/12	Outfall 006 MP006 11/19/12	Outfall 006 MP006 12/18/12	Outfall 007 MP007 03/31/10	Outfall 007 MP007 09/21/10	Outfall 007 MP007 11/22/10	Outfall 007 MP007 02/24/11	Outfall 007 MP007 04/29/11	Outfall 007 MP007 05/31/11
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Styrene	ug/L	80	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	90 U	90 U [90 U]	90 U	90 U	90 U	90 U
Toluene	ug/L	270	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	NA	NA	NA	NA	1 U	1 U [1 U]	7	7	1	2
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	4 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	20 U	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	20 U	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 09/10/12	Outfall 006 MP006 10/22/12	Outfall 006 MP006 11/19/12	Outfall 006 MP006 12/18/12	Outfall 007 MP007 03/31/10	Outfall 007 MP007 09/21/10	Outfall 007 MP007 11/22/10	Outfall 007 MP007 02/24/11	Outfall 007 MP007 04/29/11	Outfall 007 MP007 05/31/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	4 U	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	NA	NA	NA	NA	2	2 [2]	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	NA	NA	NA	NA	1	2 U [2 U]	2 U	2 U	5	2
Barium	ug/L	1,308	NA	NA	NA	NA	57	70 [69]	65	58	30	52
Beryllium	ug/L	26	NA	NA	NA	NA	1 U	0.8 U [0.8 U]	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	NA	NA	NA	NA	0.2 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	NA	5 U	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	NA	4 U	NA	NA	3	2 [2]	4 U	4 U	4 U	4 U
Cyanide (total)	ug/L	5.2	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	280	NA	NA	NA	NA	NA
Lead	ug/L	44	NA	NA	NA	NA	3	1 U [1 U]	3 U	3 U	3 U	3 U
Manganese	ug/L	4,500	NA	NA	NA	NA	11	6 [5]	9	13	23	25
Mercury	ng/L	1.3	**1.5 O(GSI)**	**1.5 O(GSI)**	**3.0 O(GSI)**	**3.3 O(GSI)**	**21(GSI)**	**2.04(GSI) [1.73(GSI)]**	**1.9 O(GSI)**	**3.1(GSI)**	**5.7(GSI)**	**2.9 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 006 MP006 09/10/12	Outfall 006 MP006 10/22/12	Outfall 006 MP006 11/19/12	Outfall 006 MP006 12/18/12	Outfall 007 MP007 03/31/10	Outfall 007 MP007 09/21/10	Outfall 007 MP007 11/22/10	Outfall 007 MP007 02/24/11	Outfall 007 MP007 04/29/11	Outfall 007 MP007 05/31/11
Nickel	ug/L	120	NA	NA	NA	NA	5 U	5 U [5 U]	6	5 U	5 U	5 U
Selenium	ug/L	5	NA	NA	NA	NA	1	5 U [5 U]	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	NA	NA	NA	NA	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	NA	NA	NA	NA	1 U	0.4 U [0.4 U]	1 U	1 U	1 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U
Vanadium	ug/L	27	NA	NA	NA	NA	4 U	4 U [4 U]	4 U	4 U	4 U	4 U
Zinc	ug/L	260	NA	NA	NA	NA	20	5 U [5 U]	5 U	5 U	12	8
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	4,000	15,000	5,000	6,000	NA	NA	NA	1,000 U	6,000	26,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	55	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	3 U	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	6	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	**1.4(GSI)**	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 06/27/11	Outfall 007 MP007 07/14/11	Outfall 007 MP007 08/15/11	Outfall 007 MP007 10/12/11	Outfall 007 MP007 11/02/11	Outfall 007 MP007 12/13/11	Outfall 007 MP007 01/03/12	Outfall 007 MP007 02/06/12	Outfall 007 MP007 03/22/12	Outfall 007 MP007 04/09/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	5	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	3	1 U	1	1 U	1 U	1 U	1 U	1 U	15	1 U
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 06/27/11	Outfall 007 MP007 07/14/11	Outfall 007 MP007 08/15/11	Outfall 007 MP007 10/12/11	Outfall 007 MP007 11/02/11	Outfall 007 MP007 12/13/11	Outfall 007 MP007 01/03/12	Outfall 007 MP007 02/06/12	Outfall 007 MP007 03/22/12	Outfall 007 MP007 04/09/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	1	1 U	1	1 U	1 U	1 U	1 U	1 U	9	1 U
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 06/27/11	Outfall 007 MP007 07/14/11	Outfall 007 MP007 08/15/11	Outfall 007 MP007 10/12/11	Outfall 007 MP007 11/02/11	Outfall 007 MP007 12/13/11	Outfall 007 MP007 01/03/12	Outfall 007 MP007 02/06/12	Outfall 007 MP007 03/22/12	Outfall 007 MP007 04/09/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	3	3	3	2	3	7	3	4	3	3
Barium	ug/L	1,308	59	77	69	76	82	87	71	61	70	63
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	5	4 U	4 U	5	10	4 U	5	6	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	4	5	6	3 U	6	18	3 U	5	10	4
Manganese	ug/L	4,500	17	41	20	28	86	394	51	146	111	82
Mercury	ng/L	1.3	1.0	**16(GSI)**	**42(GSI)**	**28(GSI)**	**3.3(GSI)**	**4.2(GSI)**	**3.5 O(GSI)**	**10 O(GSI)**	**12 O(GSI)**	**32 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 06/27/11	Outfall 007 MP007 07/14/11	Outfall 007 MP007 08/15/11	Outfall 007 MP007 10/12/11	Outfall 007 MP007 11/02/11	Outfall 007 MP007 12/13/11	Outfall 007 MP007 01/03/12	Outfall 007 MP007 02/06/12	Outfall 007 MP007 03/22/12	Outfall 007 MP007 04/09/12
Nickel	ug/L	120	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U
Titanium	ug/L	- -	20 U	20 U	20 U	20 U	20 U	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	21	25	33	12	43	88	13	22	40	33
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	330,000	26,000	12,000	10,000	46,000	31,000	91,000	32,000	54,000	22,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 05/10/12	Outfall 007 MP007 06/04/12	Outfall 007 MP007 08/06/12	Outfall 007 MP007 09/10/12	Outfall 007 MP007 10/22/12	Outfall 007 MP007 11/19/12	Outfall 007 MP007 12/18/12	Outfall 009 MP009 04/01/10	Outfall 009 MP009 09/20/10	Outfall 009 MP009 10/27/10
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	2	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
2-Butanone	ug/L	2,200	25 U	NA	NA	NA	NA	NA	NA	30 U	30 U	30 U
2-Hexanone	ug/L	- -	50 U	NA	NA	NA	NA	NA	NA	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U	NA	NA	NA	NA	NA	NA	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U	NA	NA	NA	NA	NA	NA	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U	NA	NA	NA	NA	NA	NA	2 U	2 U	2 U
Benzene	ug/L	200	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Chloroform	ug/L	350	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	1	NA	NA	NA	NA	NA	NA	24	7	8
cis-1,3-Dichloropropene	ug/L	9	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U	NA	NA	NA	NA	NA	NA	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U	NA	NA	NA	NA	NA	NA	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 05/10/12	Outfall 007 MP007 06/04/12	Outfall 007 MP007 08/06/12	Outfall 007 MP007 09/10/12	Outfall 007 MP007 10/22/12	Outfall 007 MP007 11/19/12	Outfall 007 MP007 12/18/12	Outfall 009 MP009 04/01/10	Outfall 009 MP009 09/20/10	Outfall 009 MP009 10/27/10
n-Propylbenzene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Styrene	ug/L	80	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U	NA	NA	NA	NA	NA	NA	90 U	90 U	90 U
Toluene	ug/L	270	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Trichloroethene	ug/L	200	1	NA	NA	NA	NA	NA	NA	10	3	5
Trichlorofluoromethane	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U	NA	NA	NA	NA	NA	NA	3	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 05/10/12	Outfall 007 MP007 06/04/12	Outfall 007 MP007 08/06/12	Outfall 007 MP007 09/10/12	Outfall 007 MP007 10/22/12	Outfall 007 MP007 11/19/12	Outfall 007 MP007 12/18/12	Outfall 009 MP009 04/01/10	Outfall 009 MP009 09/20/10	Outfall 009 MP009 10/27/10
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	NA	NA	NA	NA	NA	NA	1	1 U	5 U
Arsenic	ug/L	10	3	NA	NA	NA	NA	NA	NA	1	2 U	2 U
Barium	ug/L	1,308	58	NA	NA	NA	NA	NA	NA	116	222	111
Beryllium	ug/L	26	1 U	NA	NA	NA	NA	NA	NA	1 U	0.8 U	1 U
Cadmium	ug/L	4.5	0.5 U	NA	NA	NA	NA	NA	NA	0.2 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	7	NA	NA	NA	NA	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	NA	NA	NA	NA	NA	NA	1	2	4 U
Cyanide (total)	ug/L	5.2	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	**10(GSI)**
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	500	NA	NA
Lead	ug/L	44	3 U	3 U	41	NA	NA	NA	NA	1 U	1 U	3 U
Manganese	ug/L	4,500	35	NA	NA	NA	NA	NA	NA	185	207	90
Mercury	ng/L	1.3	**2.7 O(GSI)**	**31 O(GSI)**	**3.6(GSI)**	**5.6 O(GSI)**	**21 O(GSI)**	**7.1 O(GSI)**	**7.3 O(GSI)**	**13(GSI)**	**2.21(GSI)**	**1.7(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 007 MP007 05/10/12	Outfall 007 MP007 06/04/12	Outfall 007 MP007 08/06/12	Outfall 007 MP007 09/10/12	Outfall 007 MP007 10/22/12	Outfall 007 MP007 11/19/12	Outfall 007 MP007 12/18/12	Outfall 009 MP009 04/01/10	Outfall 009 MP009 09/20/10	Outfall 009 MP009 10/27/10
Nickel	ug/L	120	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Selenium	ug/L	5	5 U	NA	NA	NA	NA	NA	NA	1	5 U	**9(GSI)**
Silver	ug/L	0.2	0.5 U	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	2 U	NA	NA	NA	NA	NA	NA	1 U	0.4 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	NA	NA	NA	NA	NA	NA	4 U	4 U	4 U
Zinc	ug/L	260	10	NA	NA	NA	NA	NA	NA	5 U	13	14
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1,000 U	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	4,000	42,000	5,000	35,000	183,000	46,000	140,000	NA	NA	NA
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/22/10	Outfall 009 MP009 12/20/10	Outfall 009 MP009 01/26/11	Outfall 009 MP009 02/24/11	Outfall 009 MP009 03/24/11	Outfall 009 MP009 06/27/11	Outfall 009 MP009 07/14/11	Outfall 009 MP009 08/15/11	Outfall 009 MP009 09/14/11	Outfall 009 MP009 10/12/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	30 U [30 U]	30 U	30 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	9 [9]	13	16	12	11	14	15	8	10	11
cis-1,3-Dichloropropene	ug/L	9	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/22/10	Outfall 009 MP009 12/20/10	Outfall 009 MP009 01/26/11	Outfall 009 MP009 02/24/11	Outfall 009 MP009 03/24/11	Outfall 009 MP009 06/27/11	Outfall 009 MP009 07/14/11	Outfall 009 MP009 08/15/11	Outfall 009 MP009 09/14/11	Outfall 009 MP009 10/12/11
n-Propylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U [90 U]	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	3 [3]	5	7	6	8	7	6	3	3	3
Trichlorofluoromethane	ug/L	- -	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U [1 U]	1	1 U	1	1	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/22/10	Outfall 009 MP009 12/20/10	Outfall 009 MP009 01/26/11	Outfall 009 MP009 02/24/11	Outfall 009 MP009 03/24/11	Outfall 009 MP009 06/27/11	Outfall 009 MP009 07/14/11	Outfall 009 MP009 08/15/11	Outfall 009 MP009 09/14/11	Outfall 009 MP009 10/12/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U [2 U]	2 U	**19(GSI)**	3	2 U	5	**14(GSI)**	3	2	2
Barium	ug/L	1,308	245 [210]	222	698	207	93	140	331	271	207	159
Beryllium	ug/L	26	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U [0.5 U]	0.5 U	**8.1(GSI)**	0.5 U	0.5 U	0.8	1.7	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U [5 U]	5 U	**50(GSI)**	5 U	5 U	5 U	**16(GSI)**	5 U	5 U	6
Cobalt	ug/L	100	5 U [5 U]	5 U	8	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U [4 U]	4 U	**62(GSI)**	4 U	4 U	5	10	4 U	4 U	4 U
Cyanide (total)	ug/L	5.2	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U [3 U]	17	**265(GSI)**	3 U	7	11	22	7	3	3 U
Manganese	ug/L	4,500	558 [409]	416	2,140	757	198	2,030	**6,980(GSI)**	1,440	450	177
Mercury	ng/L	1.3	1.3 [1.2]	**6.5(GSI)**	**2.9(GSI)**	1.3	**1.8(GSI)**	**36(GSI)**	**750(GSI)**	**3.0(GSI)**	**3.6(GSI)**	**450(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/22/10	Outfall 009 MP009 12/20/10	Outfall 009 MP009 01/26/11	Outfall 009 MP009 02/24/11	Outfall 009 MP009 03/24/11	Outfall 009 MP009 06/27/11	Outfall 009 MP009 07/14/11	Outfall 009 MP009 08/15/11	Outfall 009 MP009 09/14/11	Outfall 009 MP009 10/12/11
Nickel	ug/L	120	8 [9]	5 U	23	5 U	5 U	5 U	10	5 U	5 U	5 U
Selenium	ug/L	5	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U [1 U]	1 U	1 U	1 U	1.1	1 U	1 U	1 U	2 U	1 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	20 U	26	20 U	20 U	20 U
Vanadium	ug/L	27	4 U [4 U]	4 U	19	4 U	4 U	4 U	8	4 U	4 U	4 U
Zinc	ug/L	260	5 U [5 U]	77	**1,140(GSI)**	5 U	29	55	115	22	9	8
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	NA	NA	NA	23,000	91,000	69,000	74,000	24,000	115,000	8,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	3	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	219	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	3 U	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	819	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	0.51 U	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	29	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/02/11	Outfall 009 MP009 12/13/11	Outfall 009 MP009 01/03/12	Outfall 009 MP009 02/06/12	Outfall 009 MP009 03/22/12	Outfall 009 MP009 04/09/12	Outfall 009 MP009 05/10/12	Outfall 009 MP009 06/04/12	Outfall 009 MP009 07/09/12	Outfall 009 MP009 08/06/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
2-Butanone	ug/L	2,200	25 U	25 U	25 U [25 U]	25 U	25 U	25 U	25 U	NA	NA	NA
2-Hexanone	ug/L	- -	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	NA	NA	NA
Acetone	ug/L	1,700	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	NA	NA	NA
Acrylonitrile	ug/L	2	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	NA	NA	NA
Benzene	ug/L	200	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Bromobenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Bromochloromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Bromoform	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Bromomethane	ug/L	35	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Chlorobenzene	ug/L	25	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Chloroethane	ug/L	1,100	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Chloroform	ug/L	350	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Chloromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	11	10	13 [12]	13	1	14	12	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Dibromomethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Diethyl ether	ug/L	- -	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	NA	NA	NA
Ethylbenzene	ug/L	18	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Iodomethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Isopropylbenzene	ug/L	28	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
m&p-Xylene	ug/L	41	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Naphthalene	ug/L	11	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/02/11	Outfall 009 MP009 12/13/11	Outfall 009 MP009 01/03/12	Outfall 009 MP009 02/06/12	Outfall 009 MP009 03/22/12	Outfall 009 MP009 04/09/12	Outfall 009 MP009 05/10/12	Outfall 009 MP009 06/04/12	Outfall 009 MP009 07/09/12	Outfall 009 MP009 08/06/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
o-Xylene	ug/L	41	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Styrene	ug/L	80	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Tetrachloroethene	ug/L	60	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U [90 U]	90 U	90 U	90 U	90 U	NA	NA	NA
Toluene	ug/L	270	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Trichloroethene	ug/L	200	4	5	7 [6]	7	1 U	7	7	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Vinyl Chloride	ug/L	13	1 U	1 U	1 [1]	2	1 U	1 U	1	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/02/11	Outfall 009 MP009 12/13/11	Outfall 009 MP009 01/03/12	Outfall 009 MP009 02/06/12	Outfall 009 MP009 03/22/12	Outfall 009 MP009 04/09/12	Outfall 009 MP009 05/10/12	Outfall 009 MP009 06/04/12	Outfall 009 MP009 07/09/12	Outfall 009 MP009 08/06/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Arsenic	ug/L	10	2	**12(GSI)**	2 U [2 U]	2 U	2 U	2 U	2 U	2	2 U	3
Barium	ug/L	1,308	118	654	114 [105]	100	132	201	238	NA	NA	NA
Beryllium	ug/L	26	1 U	1	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	NA
Cadmium	ug/L	4.5	0.5 U	**13.1(GSI)**	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	**51(GSI)**	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	9	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Copper	ug/L	21.6	4 U	**150(GSI)**	4 U [4 U]	5	4 U	4 U	4 U	4 U	4 U	4 U
Cyanide (total)	ug/L	5.2	**11(GSI)**	5 U	**12(GSI) [10(GSI)]**	5 U	**8(GSI)**	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U	**476(GSI)**	3 U [3 U]	3 U	3 U	13	3 U	3 U	3	3 U
Manganese	ug/L	4,500	97	2,130	120 [110]	133	409	846	1,660	3,900	1,080	3,500
Mercury	ng/L	1.3	**1.6(GSI)**	**7.7(GSI)**	**35 O(GSI)**	**150 O(GSI)**	1.1 O	**13 O(GSI)**	**1.4 O(GSI)**	1.2 O	**5.3 O(GSI)**	**3.7(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 11/02/11	Outfall 009 MP009 12/13/11	Outfall 009 MP009 01/03/12	Outfall 009 MP009 02/06/12	Outfall 009 MP009 03/22/12	Outfall 009 MP009 04/09/12	Outfall 009 MP009 05/10/12	Outfall 009 MP009 06/04/12	Outfall 009 MP009 07/09/12	Outfall 009 MP009 08/06/12
Nickel	ug/L	120	5 U	36	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Selenium	ug/L	5	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	NA
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA
Thallium	ug/L	3.7	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	NA	NA	NA
Titanium	ug/L	- -	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	21	4 U [4 U]	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	7	**1,890(GSI)**	16 [5 U]	13	9	24	24	10	11	37
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	7,000	39,000	20,000 [7,000]	6,000	4,000	8,000	10,000	15,000	12,000	28,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 09/10/12	Outfall 009 MP009 10/22/12	Outfall 009 MP009 11/19/12	Outfall 009 MP009 12/18/12	Outfall 010 MP010 03/31/10	Outfall 010 MP010 10/27/10	Outfall 010 MP010 11/22/10	Outfall 010 MP010 12/20/10	Outfall 010 MP010 01/26/11	Outfall 010 MP010 02/24/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
2-Butanone	ug/L	2,200	NA	NA	NA	NA	30 U	30 U [30 U]	30 U	30 U	30 U	25 U [25 U]
2-Hexanone	ug/L	- -	NA	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U [50 U]
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U [50 U]
Acetone	ug/L	1,700	NA	NA	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U [50 U]
Acrylonitrile	ug/L	2	NA	NA	NA	NA	2 U	2 U [2 U]	2 U	2 U	2 U	2 U [2 U]
Benzene	ug/L	200	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Bromobenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Bromoform	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Bromomethane	ug/L	35	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Chlorobenzene	ug/L	25	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Chloroethane	ug/L	1,100	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Chloroform	ug/L	350	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Chloromethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	1	2 [2]	1	1 U	1 U	1 [1]
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Dibromomethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Diethyl ether	ug/L	- -	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]
Ethylbenzene	ug/L	18	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Iodomethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
m&p-Xylene	ug/L	41	NA	NA	NA	NA	2 U	2 U [2 U]	2 U	2 U	2 U	2 U [2 U]
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Naphthalene	ug/L	11	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 09/10/12	Outfall 009 MP009 10/22/12	Outfall 009 MP009 11/19/12	Outfall 009 MP009 12/18/12	Outfall 010 MP010 03/31/10	Outfall 010 MP010 10/27/10	Outfall 010 MP010 11/22/10	Outfall 010 MP010 12/20/10	Outfall 010 MP010 01/26/11	Outfall 010 MP010 02/24/11
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
o-Xylene	ug/L	41	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Styrene	ug/L	80	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	90 U	90 U [90 U]	90 U	90 U	90 U	90 U [90 U]
Toluene	ug/L	270	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Trichloroethene	ug/L	200	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	4 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	20 U	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	20 U	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	30 U	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 09/10/12	Outfall 009 MP009 10/22/12	Outfall 009 MP009 11/19/12	Outfall 009 MP009 12/18/12	Outfall 010 MP010 03/31/10	Outfall 010 MP010 10/27/10	Outfall 010 MP010 11/22/10	Outfall 010 MP010 12/20/10	Outfall 010 MP010 01/26/11	Outfall 010 MP010 02/24/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	4 U	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	NA	NA	NA	NA	1	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Arsenic	ug/L	10	2	2 U	2 U	3	2	2 [2 U]	3	2 U	2	2 U [2 U]
Barium	ug/L	1,308	NA	NA	NA	NA	96	104 [106]	111	108	101	102 [101]
Beryllium	ug/L	26	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Cobalt	ug/L	100	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]
Copper	ug/L	21.6	4 U	4 U	4 U	4 U	5	4 U [4 U]	4 U	4 U	4 U	4 U [4 U]
Cyanide (total)	ug/L	5.2	**15(GSI)**	**14(GSI)**	**6(GSI)**	**9(GSI)**	**9(GSI)**	**8(GSI) [5 U]**	5 U	5 U	5 U	**10(GSI) [8(GSI)]**
Iron	ug/L	- -	NA	NA	NA	NA	700	NA	NA	NA	NA	NA
Lead	ug/L	44	5	3 U	5	9	2	3 U [3 U]	3 U	3	3 U	3 U [3 U]
Manganese	ug/L	4,500	401	80	460	1,170	61	48 [46]	39	70	57	54 [53]
Mercury	ng/L	1.3	**29 O(GSI)**	**3.3 O(GSI)**	**3.1 O(GSI)**	**72 O(GSI)**	**3.5(GSI) [1.7(GSI)]**	**1.7(GSI) [1.5(GSI)]**	0.99	0.95	0.73	0.90 [0.99]

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 009 MP009 09/10/12	Outfall 009 MP009 10/22/12	Outfall 009 MP009 11/19/12	Outfall 009 MP009 12/18/12	Outfall 010 MP010 03/31/10	Outfall 010 MP010 10/27/10	Outfall 010 MP010 11/22/10	Outfall 010 MP010 12/20/10	Outfall 010 MP010 01/26/11	Outfall 010 MP010 02/24/11
Nickel	ug/L	120	NA	NA	NA	NA	5 U	5 U [5 U]	7	5 U	5 U	5 U [5 U]
Selenium	ug/L	5	NA	NA	NA	NA	1 U	**6(GSI) [5 U]**	5 U	5 U	5 U	5 U [5 U]
Silver	ug/L	0.2	NA	NA	NA	NA	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]
Thallium	ug/L	3.7	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U	4 U	4 U	4 U [4 U]	4 U	4 U	4 U	4 U [4 U]
Zinc	ug/L	260	13	8	10	37	43	9 [8]	7	8	5 U	5 U [5 U]
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	1,000 U	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	10,000	11,000	8,000	267,000	NA	NA	NA	NA	NA	1,000 [1,000 U]
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 [101]
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U [0.5 U]
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U [4 U]
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 U [3 U]
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	53 [54]
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71 [0.51 U]
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U [0.5 U]
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U [4 U]
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]

Notes:

GSI - Groundwater/Surface Water Interface Criteria

NA - Not Analyzed

ug/L - micrograms per liter

ng/L - nanograms per liter

Shaded and Bolded results exceed GSI criteria

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit

O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 03/24/11	Outfall 010 MP010 04/29/11	Outfall 010 MP010 05/31/11	Outfall 010 MP010 06/27/11	Outfall 010 MP010 07/14/11	Outfall 010 MP010 08/15/11	Outfall 010 MP010 09/14/11	Outfall 010 MP010 10/12/11	Outfall 010 MP010 11/02/11	Outfall 010 MP010 12/13/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
2-Butanone	ug/L	2,200	25 U	25 U	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U	25 U [25 U]	25 U	25 U	25 U
2-Hexanone	ug/L	- -	50 U	50 U	50 U [50 U]	50 U [50 U]	50 U [50 U]	50 U	50 U [50 U]	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U [50 U]	50 U [50 U]	50 U [50 U]	50 U	50 U [50 U]	50 U	50 U	50 U
Acetone	ug/L	1,700	50 U	50 U	50 U [50 U]	50 U [50 U]	50 U [50 U]	50 U	50 U [50 U]	50 U	50 U	50 U
Acrylonitrile	ug/L	2	2 U	2 U	2 U [2 U]	2 U [2 U]	2 U [2 U]	2 U	2 U [2 U]	2 U	2 U	2 U
Benzene	ug/L	200	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Bromobenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Bromoform	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Bromomethane	ug/L	35	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Chlorobenzene	ug/L	25	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Chloroethane	ug/L	1,100	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Chloroform	ug/L	350	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Chloromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	2	1	2 [1]	2 [2]	1 [2]	2	1 [9]	1	1 U	1
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Dibromomethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Diethyl ether	ug/L	- -	10 U	10 U	10 U [10 U]	10 U [10 U]	10 U [10 U]	10 U	10 U [10 U]	10 U	10 U	10 U
Ethylbenzene	ug/L	18	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Iodomethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
m&p-Xylene	ug/L	41	2 U	2 U	2 U [2 U]	2 U [2 U]	2 U [2 U]	2 U	2 U [2 U]	2 U	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Naphthalene	ug/L	11	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 03/24/11	Outfall 010 MP010 04/29/11	Outfall 010 MP010 05/31/11	Outfall 010 MP010 06/27/11	Outfall 010 MP010 07/14/11	Outfall 010 MP010 08/15/11	Outfall 010 MP010 09/14/11	Outfall 010 MP010 10/12/11	Outfall 010 MP010 11/02/11	Outfall 010 MP010 12/13/11
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
o-Xylene	ug/L	41	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Styrene	ug/L	80	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U [90 U]	90 U [90 U]	90 U [90 U]	90 U	90 U [90 U]	90 U	90 U	90 U
Toluene	ug/L	270	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Trichloroethene	ug/L	200	1 U	1	1 [1]	1 U [1 U]	1 U [1 U]	1 U	1 U [3]	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Vinyl Chloride	ug/L	13	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA

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RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 03/24/11	Outfall 010 MP010 04/29/11	Outfall 010 MP010 05/31/11	Outfall 010 MP010 06/27/11	Outfall 010 MP010 07/14/11	Outfall 010 MP010 08/15/11	Outfall 010 MP010 09/14/11	Outfall 010 MP010 10/12/11	Outfall 010 MP010 11/02/11	Outfall 010 MP010 12/13/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	2	2 U [2 U]	3 [2]	4 [2 U]	3	2 [4]	2	**18(GSI)**	2
Barium	ug/L	1,308	85	77	82 [85]	99 [95]	247 [101]	110	113 [259]	108	1,170	113
Beryllium	ug/L	26	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U [0.5 U]	0.6 [0.5 U]	2.4 [0.5 U]	0.5 U	0.5 U [0.7]	0.5 U	**4.9(GSI)**	0.5 U
Chromium Total	ug/L	11	5 U	5	5 U [5 U]	5 U [5 U]	**36(GSI) [7]**	5 U	5 U [5 U]	5	**29(GSI)**	5 U
Cobalt	ug/L	100	5 U	5 U	5 U [5 U]	5 U [5 U]	5 [5 U]	5 U	5 U [5 U]	5 U	6	5 U
Copper	ug/L	21.6	4 U	4 U	4 U [4 U]	4 U [4 U]	**132(GSI) [4 U]**	4 U	4 U [13]	4 U	**102(GSI)**	4 U
Cyanide (total)	ug/L	5.2	5 U	**10(GSI)**	5 U [5 U]	5 U [5 U]	5 U [5 U]	**9(GSI)**	5 U [5 U]	**10(GSI)**	**13(GSI)**	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	4	3	3 U [3 U]	7 [3 U]	**196(GSI) [3 U]**	4	3 [36]	3 U	**571(GSI)**	6
Manganese	ug/L	4,500	78	117	84 [83]	317 [159]	2,550 [68]	337	30 [1,110]	28	**5,240(GSI)**	306
Mercury	ng/L	1.3	**1.4(GSI)**	**100(GSI)**	**6.9(GSI) [1.4(GSI)]**	**2.0(GSI) [1.2]**	**7.8(GSI) [1.4(GSI)]**	**600(GSI)**	**1.4(GSI)**	0.80	**9.7(GSI)**	**91(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 03/24/11	Outfall 010 MP010 04/29/11	Outfall 010 MP010 05/31/11	Outfall 010 MP010 06/27/11	Outfall 010 MP010 07/14/11	Outfall 010 MP010 08/15/11	Outfall 010 MP010 09/14/11	Outfall 010 MP010 10/12/11	Outfall 010 MP010 11/02/11	Outfall 010 MP010 12/13/11
Nickel	ug/L	120	5 U	5 U	5 U [5 U]	5 U [5 U]	34 [5]	5 U	5 U [5 U]	5 U	54	5 U
Selenium	ug/L	5	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U [0.5 U]	0.5 U [0.5 U]	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	2 U [2 U]	1 U	2 U	2 U
Titanium	ug/L	- -	NA	NA	20 U [20 U]	20 U [20 U]	21 [20 U]	20 U	20 U [20 U]	20 U	30	NA
Vanadium	ug/L	27	4 U	4 U	4 U [4 U]	4 U [4 U]	7 [4 U]	4 U	4 U [4 U]	4 U	6	4 U
Zinc	ug/L	260	12	20	10 [8]	31 [14]	**508(GSI) [11]**	19	5 U [83]	5 U	**861(GSI)**	17
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	4,000	12,000	1,000 [1,000 U]	31,000 [76,000]	224,000 [1,000]	3,000	1,000 [416,000]	3,000	7,000	7,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 01/03/12	Outfall 010 MP010 02/06/12	Outfall 010 MP010 03/22/12	Outfall 010 MP010 04/09/12	Outfall 010 MP010 05/10/12	Outfall 010 MP010 06/04/12	Outfall 010 MP010 07/09/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 09/10/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	25 U	25 U	25 U [25 U]	25 U	25 U [25 U]	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]	NA	NA	NA	NA	NA
Benzene	ug/L	200	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Chloroform	ug/L	350	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	1 U	1	1 [1 U]	1	1 [1]	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	10 U	10 U	10 U [10 U]	10 U	10 U [10 U]	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 01/03/12	Outfall 010 MP010 02/06/12	Outfall 010 MP010 03/22/12	Outfall 010 MP010 04/09/12	Outfall 010 MP010 05/10/12	Outfall 010 MP010 06/04/12	Outfall 010 MP010 07/09/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 09/10/12
n-Propylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Styrene	ug/L	80	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	90 U [90 U]	90 U	90 U [90 U]	NA	NA	NA	NA	NA
Toluene	ug/L	270	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 01/03/12	Outfall 010 MP010 02/06/12	Outfall 010 MP010 03/22/12	Outfall 010 MP010 04/09/12	Outfall 010 MP010 05/10/12	Outfall 010 MP010 06/04/12	Outfall 010 MP010 07/09/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 09/10/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Arsenic	ug/L	10	2	2	2 U [2 U]	3	6 [2 U]	2 U	2 U	NA	2	2
Barium	ug/L	1,308	103	108	98 [106]	114	143 [96]	NA	119	NA	NA	NA
Beryllium	ug/L	26	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.9 [0.5 U]	0.5 U	0.5 U	NA	0.5 U	0.5 U
Chromium Total	ug/L	11	5 U	5 U	5 U [5 U]	5 U	**13(GSI) [5 U]**	5 U	5 U	NA	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Copper	ug/L	21.6	4 U	4 U	4 U [4 U]	4	21 [4 U]	4 U	4 U	NA	6	4 U
Cyanide (total)	ug/L	5.2	**10(GSI)**	5 U	**12(GSI) [11(GSI)]**	**9(GSI)**	**10(GSI) [10(GSI)]**	**10(GSI)**	**7(GSI)**	NA	**10(GSI)**	**10(GSI)**
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U	3 U	3 U [3 U]	8	33 [3 U]	3 U	4	NA	6	3 U
Manganese	ug/L	4,500	133	92	125 [165]	452	659 [123]	91	111	NA	203	157
Mercury	ng/L	1.3	0.50 UO	**6.4 O(GSI)**	1.2 O	**75 O(GSI)**	**4.2 O(GSI)**	**91 O(GSI)**	**90 O(GSI)**	**54(GSI)**	NA	**5.1 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 01/03/12	Outfall 010 MP010 02/06/12	Outfall 010 MP010 03/22/12	Outfall 010 MP010 04/09/12	Outfall 010 MP010 05/10/12	Outfall 010 MP010 06/04/12	Outfall 010 MP010 07/09/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 08/06/12	Outfall 010 MP010 09/10/12
Nickel	ug/L	120	5 U	5 U	5 U [5 U]	5 U	40 [5 U]	5 U	6	NA	NA	NA
Selenium	ug/L	5	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U [0.5 U]	0.5 U	0.5 U [0.5 U]	NA	NA	NA	NA	NA
Thallium	ug/L	3.7	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]	NA	NA	NA	NA	NA
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	4 U [4 U]	4 U	4 U [4 U]	4 U	4 U	NA	NA	NA
Zinc	ug/L	260	9	5	8 [10]	29	157 [9]	7	13	NA	60	7
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	56,000	14,000	4,000 [3,000]	12,000	6,000 [12,000]	27,000	13,000	NA	3,000	6,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 10/22/12	Outfall 010 MP010 11/19/12	Outfall 010 MP010 12/18/12	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 11/22/10	Outfall 011 Outfall 01/26/11	Outfall 011 Outfall 02/24/11	Outfall 011 Outfall 07/14/11	Outfall 011 Outfall 09/14/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	740	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	130	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	360	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	230	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	2,200	NA	NA	NA	30 U	NA	30 U	30 U	25 U	25 U	25 U
2-Hexanone	ug/L	- -	NA	NA	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	19	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	1,700	NA	NA	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U
Acrylonitrile	ug/L	2	NA	NA	NA	2 U	NA	2 U	2 U	2 U	2 U	2 U
Benzene	ug/L	200	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	35	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	45	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	25	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1,100	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	350	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	2	NA	4	3	3	4	3
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Dibromomethane	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ug/L	- -	NA	NA	NA	10 U	NA	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	18	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	6.7	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Iodomethane	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	28	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	41	NA	NA	NA	2 U	NA	2 U	2 U	3	2 U	2 U
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	ug/L	1,500	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	11	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 10/22/12	Outfall 010 MP010 11/19/12	Outfall 010 MP010 12/18/12	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 11/22/10	Outfall 011 Outfall 01/26/11	Outfall 011 Outfall 02/24/11	Outfall 011 Outfall 07/14/11	Outfall 011 Outfall 09/14/11
n-Propylbenzene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
o-Xylene	ug/L	41	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	80	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	90 U	NA	90 U	90 U	90 U	90 U	90 U
Toluene	ug/L	270	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	200	NA	NA	NA	1 U	NA	2	2	1	2	2
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	1 U	NA	6	6	5	6	6
Vinyl Chloride	ug/L	13	NA	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 10/22/12	Outfall 010 MP010 11/19/12	Outfall 010 MP010 12/18/12	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 11/22/10	Outfall 011 Outfall 01/26/11	Outfall 011 Outfall 02/24/11	Outfall 011 Outfall 07/14/11	Outfall 011 Outfall 09/14/11
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	**0.16 O(GSI)**	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	NA	NA	NA	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	**26(GSI)**	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Barium	ug/L	1,308	346	NA	NA	114	63	87	86	86	78	78
Beryllium	ug/L	26	NA	NA	NA	0.8 U	0.8 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	**17(GSI)**	5 U	5 U	5 U	5 U	10	5 U	5 U	9	5 U
Cobalt	ug/L	100	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	**34(GSI)**	4 U	4 U	2	2	4 U	4 U	4 U	4 U	4 U
Cyanide (total)	ug/L	5.2	**12(GSI)**	**8(GSI)**	**8(GSI)**	**10(GSI)**	NA	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	**85(GSI)**	3	3 U	1 U	1 U	3 U	3 U	7	3 U	10
Manganese	ug/L	4,500	**6,130(GSI)**	66	68	33	24	62	58	62	43	55
Mercury	ng/L	1.3	5.0 UO	1.1 O	**370 O(GSI)**	1.03	NA	0.50 UO	0.51 U	0.53	0.51 U	0.92 O

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 010 MP010 10/22/12	Outfall 010 MP010 11/19/12	Outfall 010 MP010 12/18/12	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 09/21/10	Outfall 011 Outfall 11/22/10	Outfall 011 Outfall 01/26/11	Outfall 011 Outfall 02/24/11	Outfall 011 Outfall 07/14/11	Outfall 011 Outfall 09/14/11
Nickel	ug/L	120	NA	NA	NA	5 U	5 U	9	5 U	5 U	5	5 U
Selenium	ug/L	5	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	NA	NA	NA	0.4 U	0.4 U	1 U	1 U	1 U	1 U	2 U
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U
Vanadium	ug/L	27	NA	NA	NA	4 U	4 U	5	4 U	4 U	4 U	4 U
Zinc	ug/L	260	**379(GSI)**	5 U	5 U	6	5 U	5 U	5 U	5 U	5	5 U
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	6,000	3,000	7,000	NA	NA	NA	NA	1,000 U	1,000	2,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 011 Outfall 10/12/11	Outfall 011 Outfall 04/09/12	Outfall 011 Outfall 07/09/12	Outfall 013 MP013 03/31/10	Outfall 013 MP013 09/21/10	Outfall 013 MP013 10/27/10	Outfall 013 MP013 11/22/10	Outfall 013 MP013 12/20/10	Outfall 013 MP013 01/26/11	Outfall 013 MP013 04/29/11
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	25 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	50 U	50 U	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	2 U	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	200	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	350	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	2	3	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	10 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	2 U	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 011 Outfall 10/12/11	Outfall 011 Outfall 04/09/12	Outfall 011 Outfall 07/09/12	Outfall 013 MP013 03/31/10	Outfall 013 MP013 09/21/10	Outfall 013 MP013 10/27/10	Outfall 013 MP013 11/22/10	Outfall 013 MP013 12/20/10	Outfall 013 MP013 01/26/11	Outfall 013 MP013 04/29/11
n-Propylbenzene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	80	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	90 U	90 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	270	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	2	2	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	5	6	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 011 Outfall 10/12/11	Outfall 011 Outfall 04/09/12	Outfall 011 Outfall 07/09/12	Outfall 013 MP013 03/31/10	Outfall 013 MP013 09/21/10	Outfall 013 MP013 10/27/10	Outfall 013 MP013 11/22/10	Outfall 013 MP013 12/20/10	Outfall 013 MP013 01/26/11	Outfall 013 MP013 04/29/11
bis(2-Chloroethyl)ether	ug/L	1	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	NA	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	2 U	NA	1	2 U	2 U	2	2 U	9	2 U
Barium	ug/L	1,308	78	79	NA	84	82	68	76	82	214	54
Beryllium	ug/L	26	1 U	1 U	NA	1 U	0.8 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	NA	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	8	5 U	NA	5 U	5 U	5 U	10	5 U	7	5 U
Cobalt	ug/L	100	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	4 U	4 U	4	4	3	4 U	**31(GSI)**	4 U	5	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	NA	**28(GSI)**	5 U	5 U	5 U	5 U	5 U	**8(GSI)**
Iron	ug/L	- -	NA	NA	NA	300	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U	3 U	7	1 U	1 U	3 U	12	3 U	7	3 U
Manganese	ug/L	4,500	54	50	NA	60	26	28	70	46	1,920	76
Mercury	ng/L	1.3	0.50 O	1.0 O	0.77 O	**2.0(GSI)**	**2.47(GSI)**	**1.9(GSI)**	**42(GSI)**	0.55	0.51 U	0.67

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 011 Outfall 10/12/11	Outfall 011 Outfall 04/09/12	Outfall 011 Outfall 07/09/12	Outfall 013 MP013 03/31/10	Outfall 013 MP013 09/21/10	Outfall 013 MP013 10/27/10	Outfall 013 MP013 11/22/10	Outfall 013 MP013 12/20/10	Outfall 013 MP013 01/26/11	Outfall 013 MP013 04/29/11
Nickel	ug/L	120	5 U	5 U	NA	5 U	5 U	5 U	13	5 U	7	5 U
Selenium	ug/L	5	5 U	5 U	NA	1 U	5 U	**6(GSI)**	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	**0.8(GSI)**	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	2 U	NA	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U
Titanium	ug/L	- -	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	4 U	NA	4 U	4 U	4 U	7	4 U	4 U	4 U
Zinc	ug/L	260	5 U	5 U	NA	9	7	30	45	5 U	56	11
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	33,000	7,000	6,000	NA	NA	NA	NA	NA	NA	2,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	59
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 U
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	70
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.94
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	16

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/31/11	Outfall 013 MP013 06/27/11	Outfall 013 MP013 07/14/11	Outfall 013 MP013 08/15/11	Outfall 013 MP013 09/14/11	Outfall 013 MP013 12/13/11	Outfall 013 MP013 01/03/12	Outfall 013 MP013 02/06/12	Outfall 013 MP013 03/22/12	Outfall 013 MP013 04/09/12
VOC												
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/31/11	Outfall 013 MP013 06/27/11	Outfall 013 MP013 07/14/11	Outfall 013 MP013 08/15/11	Outfall 013 MP013 09/14/11	Outfall 013 MP013 12/13/11	Outfall 013 MP013 01/03/12	Outfall 013 MP013 02/06/12	Outfall 013 MP013 03/22/12	Outfall 013 MP013 04/09/12
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOC												
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/31/11	Outfall 013 MP013 06/27/11	Outfall 013 MP013 07/14/11	Outfall 013 MP013 08/15/11	Outfall 013 MP013 09/14/11	Outfall 013 MP013 12/13/11	Outfall 013 MP013 01/03/12	Outfall 013 MP013 02/06/12	Outfall 013 MP013 03/22/12	Outfall 013 MP013 04/09/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB												
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic												
Antimony	ug/L	130	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	ug/L	10	2 U	2 U	2	2 U	**23(GSI)**	2 U	2 U	2 U	2 U	2 U
Barium	ug/L	1,308	124	86	143	84	138	88	93	87	86	72
Beryllium	ug/L	26	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/L	4.5	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium Total	ug/L	11	**51(GSI)**	10	**14(GSI)**	5 U	5	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	ug/L	21.6	**35(GSI)**	**46(GSI)**	**59(GSI)**	4 U	**72(GSI)**	4 U	4 U	4 U	4 U	7
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	**248(GSI)**	38	14	5	24	3 U	3 U	4	3 U	3 U
Manganese	ug/L	4,500	693	173	528	40	318	98	87	96	114	78
Mercury	ng/L	1.3	**5.7(GSI)**	**42(GSI)**	**87(GSI)**	**1.6(GSI)**	**29(GSI)**	0.70	**92 O(GSI)**	**220 O(GSI)**	**74 O(GSI)**	**48 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/31/11	Outfall 013 MP013 06/27/11	Outfall 013 MP013 07/14/11	Outfall 013 MP013 08/15/11	Outfall 013 MP013 09/14/11	Outfall 013 MP013 12/13/11	Outfall 013 MP013 01/03/12	Outfall 013 MP013 02/06/12	Outfall 013 MP013 03/22/12	Outfall 013 MP013 04/09/12
Nickel	ug/L	120	10	5 U	8	5 U	7	5 U	5 U	5 U	5 U	5 U
Selenium	ug/L	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/L	0.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Thallium	ug/L	3.7	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U
Titanium	ug/L	- -	30	20 U	20 U	20 U	20 U	NA	NA	NA	NA	NA
Vanadium	ug/L	27	5	4 U	4	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Zinc	ug/L	260	117	131	99	6	159	5 U	5 U	5 U	5 U	6
Miscellaneous												
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	61,000	43,000	12,000	1,000	10,000	6,000	12,000	19,000	3,000	3,000
Inorganic-Dissolved												
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/10/12	Outfall 013 MP013 06/04/12	Outfall 013 MP013 07/09/12	Outfall 013 MP013 09/10/12	Outfall 013 MP013 10/22/12	Outfall 013 MP013 11/19/12	Outfall 013 MP013 12/18/12
VOC									
1,1,1,2-Tetrachloroethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	89	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	78	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	330	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	740	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	130	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	5.7	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	360	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	230	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	45	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	2,200	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/L	1,700	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	2	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	200	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Bromoform	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	35	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	45	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	25	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	1,100	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	350	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	620	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	18	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	7,100	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/10/12	Outfall 013 MP013 06/04/12	Outfall 013 MP013 07/09/12	Outfall 013 MP013 09/10/12	Outfall 013 MP013 10/22/12	Outfall 013 MP013 11/19/12	Outfall 013 MP013 12/18/12
n-Propylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	41	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	80	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	60	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	11,000	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	270	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1,500	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	9	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	200	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	13	NA	NA	NA	NA	NA	NA	NA
SVOC									
1,2,4-Trichlorobenzene	ug/L	99	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	13	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	28	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	17	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	380	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	18	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	19	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	30	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.3	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	7.4	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	38	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	- -	NA	NA	NA	NA	NA	NA	NA

Appendix C. **2010 to 2012 NPMP Sampling Results**

RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/10/12	Outfall 013 MP013 06/04/12	Outfall 013 MP013 07/09/12	Outfall 013 MP013 09/10/12	Outfall 013 MP013 10/22/12	Outfall 013 MP013 11/19/12	Outfall 013 MP013 12/18/12
bis(2-Chloroethyl)ether	ug/L	1	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	67	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	110	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	9.7	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	1.6	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	12	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.053	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	6.7	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	1,300	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	30	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	180	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1.8	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	2	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
PCB									
Aroclor-1016	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Inorganics									
Mercury (Dissolved)	ug/L	0.0013	NA	NA	NA	**0.22 O(GSI)**	**0.041 O(GSI)**	NA	NA
Inorganic									
Antimony	ug/L	130	5 U	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	10	2 U	2 U	2	2	3	2 U	2 U
Barium	ug/L	1,308	61	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	26	1 U	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	4.5	0.5 U	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cobalt	ug/L	100	5 U	NA	NA	NA	NA	NA	NA
Copper	ug/L	21.6	16	10	**69(GSI)**	**23(GSI)**	**26(GSI)**	5	4 U
Cyanide (total)	ug/L	5.2	5 U	5 U	5 U	**10(GSI)**	5 U	5 U	5 U
Iron	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	44	3 U	3 U	6	3 U	5	4	3 U
Manganese	ug/L	4,500	61	NA	NA	NA	NA	NA	NA
Mercury	ng/L	1.3	**51 O(GSI)**	**99 O(GSI)**	**>100 O(GSI)**	NA	NA	**40 O(GSI)**	**2.8 O(GSI)**

Appendix C. **2010 to 2012 NPMP Sampling Results**
RACER Trust Buick City Site - Flint, Michigan

Outfall: Sample Location: Date Collected:	Units	GSI	Outfall 013 MP013 05/10/12	Outfall 013 MP013 06/04/12	Outfall 013 MP013 07/09/12	Outfall 013 MP013 09/10/12	Outfall 013 MP013 10/22/12	Outfall 013 MP013 11/19/12	Outfall 013 MP013 12/18/12
Nickel	ug/L	120	5 U	NA	NA	NA	NA	NA	NA
Selenium	ug/L	5	5 U	NA	NA	NA	NA	NA	NA
Silver	ug/L	0.2	0.5 U	NA	NA	NA	NA	NA	NA
Thallium	ug/L	3.7	2 U	NA	NA	NA	NA	NA	NA
Titanium	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	27	4 U	NA	NA	NA	NA	NA	NA
Zinc	ug/L	260	26	12	46	NA	NA	NA	NA
Miscellaneous									
Oil and Grease	ug/L	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	ug/L	- -	14,000	8,000	50,000	9,000	127,000	2,000	1,000
Inorganic-Dissolved									
Antimony (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	10	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	1,200	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	26	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	4.5	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	11	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	100	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	21.6	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	44	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	4,500	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ng/L	1.3	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	120	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	5	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.2	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	3.7	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	27	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	260	NA	NA	NA	NA	NA	NA	NA

Notes:
GSI - Groundwater/Surface Water Interface Criteria
NA - Not Analyzed
ug/L - micrograms per liter
ng/L - nanograms per liter
Shaded and Bolded results exceed GSI criteria
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
O - Indicates that the analysis was performed by an outside laboratory

Appendix D

Historic Groundwater Monitoring Data

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	03-02 09/20/01	03-02 06/14/02	03-101 09/27/01	RFI-09-04R 06/06/13	RFI-09-06 09/13/01	RFI-09-06 06/21/02	03-101 09/27/01	03-101 06/25/02	03-109 09/26/01	03-111 09/21/01	03-114 09/21/01	03-114R 03/31/03	04-1 09/14/01	04-1 12/14/01	04-2 09/17/01	04-2 12/14/01	04-3 09/17/01
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	30 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	2.4	1 U	NA	1 U [1 U]	NA	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	2 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	NA	1 U [1 U]	NA	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	20 U	25 U	NA	NA	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U [25 U]	NA	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U [50 U]	NA	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	10 U	50 U	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	4.4 J [4.2 J]	NA	50 U
Acetone	ug/L	25 U	25 U	0.74 J	20 U	25 U	NA	NA	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U [25 U]	NA	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	14	NA	NA	1 U	0.66 J	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2.8	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Bromomethane	ug/L	1 UJ	1 U	1 U	2 U	1 U	NA	NA	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
cis-1,2-Dichloroethene	ug/L	0.81 J	1 U	42	1	1 U	NA	NA	31	1 U	1 U	0.53 J	23	1 U	NA	1 U [1 U]	NA	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Cyclohexane	ug/L	5 U	5 U	5 U	1 U	15	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	3.5 J	NA	1 U [1 U]	NA	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	5	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	24	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	1 U	1.6 J	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	15	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	28	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	10 U	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	0.71 J	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
Methylcyclohexane	ug/L	1 U	1 U	1 U	20 U	11	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U
Naphthalene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	3.4	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5.2	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	03-02 09/20/01	03-02 06/14/02	03-101 09/27/01	RFI-09-04R 06/06/13	RFI-09-06 09/13/01	RFI-09-06 06/21/02	03-101 09/27/01	03-101 06/25/02	03-109 09/26/01	03-111 09/21/01	03-114 09/21/01	03-114R 03/31/03	04-1 09/14/01	04-1 12/14/01	04-2 09/17/01	04-2 12/14/01	04-3 09/17/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	8	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1.4	1 U	1 U	NA	NA	0.82 J	1 U	1 U	1 U	2.9	1 U	NA	1 U [1 U]	NA	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	64 J	8	1 U	NA	NA	57	1 U	1 U	0.66 J	11	1 U	NA	1 U [1 U]	NA	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	3	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U
Vinyl Chloride	ug/L	1 U	1 U	9.1	1 U	1 U	NA	NA	4.6	1 U	1 U	1 U	8.4	1 U	NA	1 U [1 U]	NA	1 U
SVOC																		
1,1'-Biphenyl	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2,4,5-Trichlorophenol	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2,4,6-Trichlorophenol	ug/L	4.2 U	NA	4.2 U	NA	4 U	NA	NA	NA	4.2 U	4.4 U	4.3 U	NA	4 U	NA	4 U [4 U]	NA	4.4 U
2,4-Dichlorophenol	ug/L	11 U	NA	11 U	NA	10 U	NA	NA	NA	11 U	11 U	11 U	NA	10 U	NA	10 U [10 U]	NA	11 U
2,4-Dimethylphenol	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2,4-Dinitrophenol	ug/L	21 UJ	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 UJ
2,4-Dinitrotoluene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2,6-Dinitrotoluene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2-Chloronaphthalene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2-Chlorophenol	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2-Methylnaphthalene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2-Methylphenol	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
2-Nitroaniline	ug/L	21 U	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
2-Nitrophenol	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
3&4-Methylphenol	ug/L	11 UJ	NA	11 UJ	NA	10 UJ	NA	NA	NA	11 UJ	11 UJ	11 UJ	NA	10 UJ	NA	10 UJ [10 UJ]	NA	11 UJ
3,3'-Dichlorobenzidine	ug/L	21 U	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	21 U	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
4,6-Dinitro-2-methylphenol	ug/L	21 U	NA	21 UJ	NA	20 U	NA	NA	NA	21 UJ	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
4-Bromophenyl-phenylether	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	R [5 U]	NA	5.6 U
4-Chloro-3-Methylphenol	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
4-Chloroaniline	ug/L	21 U	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
4-Chlorophenyl-phenylether	ug/L	R	NA	5.3 U	NA	R	NA	NA	NA	5.3 U	R	R	NA	R	NA	5 U [R]	NA	R
4-Nitroaniline	ug/L	21 U	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
4-Nitrophenol	ug/L	21 UJ	NA	21 U	NA	20 U	NA	NA	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
Acenaphthene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Acenaphthylene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Acetophenone	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Anthracene	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Atrazine	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Benzaldehyde	ug/L	5.3 U	NA	5.3 U	NA	5 U	NA	NA	NA	5.3 U	5.6 UJ	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Benzo(a)anthracene	ug/L	1.1 UJ	NA	1.1 U	NA	1 U	NA	NA	NA	1.1 U	1.1 U	1.1 U	NA	1 U	NA	1 U [1 U]	NA	1.1 U
Benzo(a)pyrene	ug/L	2.1 U	NA	2.1 U	NA	2 U	NA	NA	NA	2.1 U	2.2 U	2.2 U	NA	2 U	NA	2 U [2 U]	NA	2.2 U
Benzo(b)fluoranthene	ug/L	2.1 U	NA	2.1 U	NA	2 U	NA	NA	NA	2.1 U	2.2 U	2.2 U	NA	2 U	NA	2 U [2 U]	NA	2.2 U
Benzo(g,h,i)perylene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Benzo(k)fluoranthene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
bis(2-Chloroethoxy)methane	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
bis(2-Chloroethyl)ether	ug/L	1.1 U	NA	NA	NA	1 U	NA	1.1 U	NA	1.1 U	1.1 U	1.1 U	NA	1 U	NA	1 U [1 U]	NA	1.1 U
bis(2-Ethylhexyl)phthalate	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	1.34 J	3.94 J	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Butylbenzylphthalate	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Caprolactam	ug/L	11 U	NA	NA	NA	10 U	NA	11 U	NA	11 U	11 U	11 U	NA	10 U	NA	10 UJ [10 UJ]	NA	11 UJ
Carbazole	ug/L	11 U	NA	NA	NA	10 U	NA	11 U	NA	11 U	11 U	11 U	NA	10 U	NA	10 U [10 U]	NA	11 U
Chrysene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Dibenzo(a,h)anthracene	ug/L	2.1 U	NA	NA	NA	2 U	NA	2.1 U	NA	2.1 U	2.2 U	2.2 U	NA	2 U	NA	2 U [2 U]	NA	2.2 U
Dibenzofuran	ug/L	4.2 U	NA	NA	NA	4 U	NA	4.2 U	NA	4.2 U	4.4 U	4.3 U	NA	4 U	NA	4 U [4 U]	NA	4.4 U
Diethylphthalate	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	03-02 09/20/01	03-02 06/14/02	03-101 09/27/01	RFI-09-04R 06/06/13	RFI-09-06 09/13/01	RFI-09-06 06/21/02	03-101 09/27/01	03-101 06/25/02	03-109 09/26/01	03-111 09/21/01	03-114 09/21/01	03-114R 03/31/03	04-1 09/14/01	04-1 12/14/01	04-2 09/17/01	04-2 12/14/01	04-3 09/17/01
Dimethylphthalate	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Di-n-Butylphthalate	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Di-n-Octylphthalate	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Fluoranthene	ug/L	2.1 U	NA	NA	NA	2 U	NA	2.1 U	NA	2.1 U	1.26 J	2.2 U	NA	2 U	NA	2 U [2 U]	NA	2.2 U
Fluorene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Hexachlorobenzene	ug/L	1.1 U	NA	NA	NA	1 U	NA	1.1 U	NA	1.1 U	1.1 U	1.1 U	NA	1 U	NA	1 U [1 U]	NA	1.1 U
Hexachlorobutadiene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Hexachlorocyclopentadiene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Hexachloroethane	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Indeno(1,2,3-cd)pyrene	ug/L	2.1 U	NA	NA	NA	2 U	NA	2.1 U	NA	2.1 U	2.2 U	2.2 U	NA	2 U	NA	2 U [2 U]	NA	2.2 U
Isophorone	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Methylphenols, Total	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Naphthalene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Nitrobenzene	ug/L	2.1 U	NA	NA	NA	2 U	NA	2.1 U	NA	2.1 U	2.2 U	2.2 U	NA	2 U	NA	2 U [2 U]	NA	2.2 U
N-Nitroso-di-n-propylamine	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
N-Nitrosodiphenylamine	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Pentachlorophenol	ug/L	21 U	NA	NA	NA	20 U	NA	21 U	NA	21 U	22 U	22 U	NA	20 U	NA	20 U [20 U]	NA	22 U
Phenanthrene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	0.8 J	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Phenol	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	5.6 U	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
Pyrene	ug/L	5.3 U	NA	NA	NA	5 U	NA	5.3 U	NA	5.3 U	0.844 J	5.4 U	NA	5 U	NA	5 U [5 U]	NA	5.6 U
PCB																		
Aroclor-1016	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.12 U
Aroclor-1221	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.12 U
Aroclor-1232	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.12 U
Aroclor-1242	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.12 U
Aroclor-1248	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.11 U	NA	0.16 [0.17]	NA	0.12 U
Aroclor-1254	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.12 U
Aroclor-1260	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.12 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.11 U	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.11 U	0.1 U	0.11 U	NA	0.11 U	NA	0.16 [0.17]	NA	0.12 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.11 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.11 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.11 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.11 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.14 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.17 U	NA	0.1 U [0.14]	NA	0.11 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.039 J	NA	0.1 U [0.1 U]	NA	0.11 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	0.11 U
Total PCBs (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.14 U	NA	0.11 U	NA	0.11 U	0.1 U	0.11 U	NA	0.039 J	NA	0.1 U [0.14]	NA	0.11 U
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	0.12 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	0.66	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5 U	NA	NA	NA	5.6	NA	5 U	NA	5 U	3 J	5 U	NA	NA	NA	5 U [5 U]	NA	5 U
Lead	ug/L	NA	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA
Manganese	ug/L	NA	NA	NA	NA	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	0.2 U [0.2 U]	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	03-02 09/20/01	03-02 06/14/02	03-101 09/27/01	RFI-09-04R 06/06/13	RFI-09-06 09/13/01	RFI-09-06 06/21/02	03-101 09/27/01	03-101 06/25/02	03-109 09/26/01	03-111 09/21/01	03-114 09/21/01	03-114R 03/31/03	04-1 09/14/01	04-1 12/14/01	04-2 09/17/01	04-2 12/14/01	04-3 09/17/01
Nickel	ug/L	NA	NA	NA	NA	6.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	14 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	NA	1.2 U	NA	1.2 U	NA	1.2 U	1.2 U	1.2 U	NA	1.2 U	NA	1.2 U [1.2 U]	NA	1.2 U
Arsenic (Dissolved)	ug/L	3.6	NA	NA	NA	17	NA	29	NA	1 U	2 J	1.8 U	NA	1.9	NA	1 [1 U]	NA	1 U
Barium (Dissolved)	ug/L	77 J	NA	NA	NA	210	NA	49	NA	93	230	58	NA	72	NA	57 [57]	NA	11
Beryllium (Dissolved)	ug/L	0.4 U	NA	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	0.4 UJ	0.4 UJ	NA	0.4 U	NA	0.4 U [0.4 U]	NA	0.4 U
Cadmium (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.47	2.8	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.2 U
Chromium Total (Dissolved)	ug/L	0.6 U	NA	NA	NA	1.8 U	NA	0.6 U	NA	0.6 U	1.1	0.6 U	NA	1.1 U	NA	0.63 [0.6 U]	NA	0.6 U
Cobalt (Dissolved)	ug/L	0.43	NA	NA	NA	0.68	NA	0.58	NA	0.45	0.63	0.2 U	NA	0.5	NA	0.23 [0.22]	NA	0.2 U
Copper (Dissolved)	ug/L	5.2	NA	NA	NA	3.3 U	NA	2.8	NA	7.6	7.4 J	18 J	NA	7.2 U	NA	4.1 [1.7]	NA	25
Cyanide (dissolved)	ug/L	5 U	NA	NA	NA	3.2 J	NA	3.3 J	NA	5 U	2.7 J	5 U	NA	3.8 J	NA	5 U [5 U]	NA	5 U
Lead (Dissolved)	ug/L	0.4 U	NA	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	0.4 U	0.4 U	NA	0.4 U	NA	0.4 U [0.4 U]	NA	0.4 U
Manganese (Dissolved)	ug/L	460	NA	NA	NA	140	NA	450 J	NA	1,500	280	270	NA	50	NA	100 [97]	NA	55
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.2 U
Nickel (Dissolved)	ug/L	3	NA	NA	NA	5.8 U	NA	2.1	NA	3.9	8.7	3.1	NA	4.5 U	NA	3.2 [3.1]	NA	4.4
Selenium (Dissolved)	ug/L	1.4 U	NA	NA	NA	14	NA	1.4 U	NA	1.4 U	1.4 U	2.6 J	NA	13	NA	1.4 U [1.4 U]	NA	1.4 U
Silver (Dissolved)	ug/L	1.7 J	NA	NA	NA	0.41 J	NA	0.4 UJ	NA	0.4 U	0.4 UJ	0.4 UJ	NA	0.4 U	NA	0.4 U [0.4 U]	NA	0.4 U
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.2 U
Vanadium (Dissolved)	ug/L	0.8 U	NA	NA	NA	1.4	NA	0.8 U	NA	0.8 U	0.8 U	0.89	NA	0.8 U	NA	0.8 U [0.8 U]	NA	0.8 U
Zinc (Dissolved)	ug/L	180	NA	NA	NA	31 J	NA	6.9	NA	110	83	29	NA	13 U	NA	13 [9.4]	NA	15
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	04-3 10/26/10	04-3 10/21/11	04-3 11/08/12	04-4 09/17/01	04-4 03/27/03	04-4 10/28/10	04-4 10/21/11	04-4 11/08/12	04-5 09/18/01	04-120 09/17/01	04-121 09/28/01	04-140 10/01/01	04-140-ULF 10/01/01	04-160 09/21/01	04-160 06/25/02	04-160 10/04/04	07-01 09/20/01	07-01 10/15/10
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,1,1-Trichloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	0.96 J	4
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 UJ	NA	1 UJ	NA	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	30 U	1 U	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	3.9	6
1,1-Dichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	2 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	5 U
1,2-Dibromoethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,3-Dichlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	1.2 J	25 U	25 U	25 U	NA	25 U	NA	30 U	25 U	30 U
2-Hexanone	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA	50 U	50 U	50 U	50 U	NA	50 U	NA	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Methyl-2-pentanone	ug/L	NA	NA	NA	50 U	NA	NA	NA	NA	50 U	50 U	50 U	50 U	NA	50 U	NA	1 U	50 U	50 U
Acetone	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	25 U	25 U	25 U	25 U	NA	25 U	NA	30 U	25 U	50 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Benzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromodichloromethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Bromoform	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	1 U	1 U
Bromomethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	2 UJ	1 UJ	5 U
Carbon Disulfide	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Chlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Chloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	1 U	5 U
Chloroform	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Chloromethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	5 U
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	7
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Cyclohexane	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	1 U	5 U	NA
Dibromochloromethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	5 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Dichlorodifluoromethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	32	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	5 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Ethylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1.1	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Isopropylbenzene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	1 U	5 U	5 U
m&p-Xylene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	0.56 J	2 U	2 U	2 U	NA	2 U	NA	1 U	2 U	2 U
Methyl acetate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	10 U	5 U	NA
Methyl tert-butyl ether	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	5 U
Methylcyclohexane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	0.51 J	1 U	1 U	1 U	NA	1 U	NA	20 U	1 U	NA
Methylene Chloride	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
o-Xylene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Styrene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	04-3 10/26/10	04-3 10/21/11	04-3 11/08/12	04-4 09/17/01	04-4 03/27/03	04-4 10/28/10	04-4 10/21/11	04-4 11/08/12	04-5 09/18/01	04-120 09/17/01	04-121 09/28/01	04-140 10/01/01	04-140-ULF 10/01/01	04-160 09/21/01	04-160 06/25/02	04-160 10/04/04	07-01 09/20/01	07-01 10/15/10
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Tetrachloroethene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	28
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U
Toluene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Trichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	3
Trichlorofluoromethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
Vinyl Chloride	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U
SVOC																			
1,1'-Biphenyl	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	4 U	NA	NA	NA	NA	4.4 U	4.4 U	4 U	4.4 U	NA	4.4 U	NA	NA	4.4 U	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	11 U	11 U	10 U	11 U	NA	11 U	NA	NA	11 U	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	20 UJ	NA	NA	NA	NA	22 U	22 UJ	20 U	22 U	NA	22 U	NA	NA	22 U	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2-Chlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2-Methylphenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
2-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
2-Nitrophenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
3&4-Methylphenol	ug/L	NA	NA	NA	10 UJ	NA	NA	NA	NA	11 U	11 UJ	10 UJ	11 UJ	NA	11 UJ	NA	NA	11 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
4-Chloroaniline	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	R	NA	NA	NA	NA	R	R	5 U	5.6 U	NA	R	NA	NA	R	NA
4-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 UJ	22 U	NA	22 U	NA	NA	22 U	NA
4-Nitrophenol	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
Acenaphthene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Acenaphthylene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Acetophenone	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Anthracene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Atrazine	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Benzaldehyde	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 UJ	NA	NA	5.6 UJ	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1.1 U	1.1 U	1 U	1.1 U	NA	1.1 U	NA	NA	1.1 U	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	2.2 U	2.2 U	2 U	2.2 U	NA	2.2 U	NA	NA	2.2 U	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	2.2 U	2.2 U	2 U	2.2 U	NA	2.2 U	NA	NA	2.2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1.1 U	1.1 U	1 U	1.1 U	NA	1.1 U	NA	NA	1.1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Caprolactam	ug/L	NA	NA	NA	10 UJ	NA	NA	NA	NA	11 U	11 UJ	10 U	11 U	NA	11 U	NA	NA	11 U	NA
Carbazole	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	11 U	11 U	10 UJ	11 U	NA	11 U	NA	NA	11 U	NA
Chrysene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	2.2 U	2.2 U	2 U	2.2 U	NA	2.2 U	NA	NA	2.2 U	NA
Dibenzofuran	ug/L	NA	NA	NA	4 U	NA	NA	NA	NA	4.4 U	4.4 U	4 U	4.4 U	NA	4.4 U	NA	NA	4.4 U	NA
Diethylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	2.46 J	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	04-3 10/26/10	04-3 10/21/11	04-3 11/08/12	04-4 09/17/01	04-4 03/27/03	04-4 10/28/10	04-4 10/21/11	04-4 11/08/12	04-5 09/18/01	04-120 09/17/01	04-121 09/28/01	04-140 10/01/01	04-140-ULF 10/01/01	04-160 09/21/01	04-160 06/25/02	04-160 10/04/04	07-01 09/20/01	07-01 10/15/10
Dimethylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Fluoranthene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	2.2 U	2.2 U	2 U	2.2 U	NA	2.2 U	NA	NA	2.2 U	NA
Fluorene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Hexachlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1.1 U	1.1 U	1 U	1.1 U	NA	1.1 U	NA	NA	1.1 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Hexachloroethane	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	2.2 U	2.2 U	2 U	2.2 U	NA	2.2 U	NA	NA	2.2 U	NA
Isophorone	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Methylphenols, Total	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Naphthalene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Nitrobenzene	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	2.2 U	2.2 U	2 U	2.2 U	NA	2.2 U	NA	NA	2.2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Pentachlorophenol	ug/L	NA	NA	NA	20 U	NA	NA	NA	NA	22 U	22 U	20 U	22 U	NA	22 U	NA	NA	22 U	NA
Phenanthrene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Phenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
Pyrene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5.6 U	5.6 U	5 U	5.6 U	NA	5.6 U	NA	NA	5.6 U	NA
PCB																			
Aroclor-1016	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1221	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1232	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1242	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1248	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1254	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1260	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA	0.11 U	0.11 U	0.1 U	0.11 U	NA	0.12 U	NA	NA	0.1 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.1 U	NA	0.11 U	NA	NA	0.11 U	NA
Inorganic																			
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7 U	NA	1.2 U	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 J	NA	10	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110 J	NA	93	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.09 J	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3 J	NA	1.1	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.93 J	NA	0.42	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3 J	NA	4.5	NA	NA	NA
Cyanide (total)	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	1.3 J	3.5 J	4 J	1.3 J	5 U	NA	2 J	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.56 J	NA	1.7	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39 J	NA	47	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	04-3 10/26/10	04-3 10/21/11	04-3 11/08/12	04-4 09/17/01	04-4 03/27/03	04-4 10/28/10	04-4 10/21/11	04-4 11/08/12	04-5 09/18/01	04-120 09/17/01	04-121 09/28/01	04-140 10/01/01	04-140-ULF 10/01/01	04-160 09/21/01	04-160 06/25/02	04-160 10/04/04	07-01 09/20/01	07-01 10/15/10
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15 J	NA	5.1	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39 J	NA	1.4 U	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.77 U	NA	0.4 UJ	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.055 J	NA	0.2 U	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.29 J	NA	0.31 J	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31 J	NA	26	NA	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	NA	NA	NA	NA	1.2 U	1.2 U	1.2 U	1.2 U	NA	1.2 U	1.2 U	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	6.5	NA	NA	NA	NA	1 U	3.8	1 U	1 U	NA	11	9.6	NA	1 J	NA
Barium (Dissolved)	ug/L	NA	NA	NA	17	NA	NA	NA	NA	63	50	41	60	NA	130	77	NA	32 J	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	0.6 U	NA	NA	NA	NA	0.6 U	0.6 U	0.6 U	0.75 U	NA	0.98	0.6 U	NA	0.6 U	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	0.23	NA	NA	NA	NA	0.2 U	1.8	0.2 U	0.3	NA	0.4	0.2 U	NA	0.4	NA
Copper (Dissolved)	ug/L	NA	NA	NA	5.4	NA	NA	NA	NA	1.2	5	0.86	1.3 U	NA	16	5.3	NA	5.8	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	5 U	0.92 J	3.5 J	NA	1.2 J	5 U	NA	2.1 J	NA
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.7	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	37	NA	NA	NA	NA	26 J	150	19 J	9.2	NA	42	32 J	NA	260	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	1.7	NA	NA	NA	NA	7.5	7.1	4.4	6	NA	5.4	3.1	NA	3.5	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	2.8	NA	NA	NA	NA	1.4 U	1.4 U	4.5	19	NA	2 J	2 J	NA	1.4 U	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.4 UJ	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.4 UJ	NA	0.41 J	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	4.4	NA	NA	NA	NA	0.8 U	0.8 U	0.8 U	0.8 U	NA	0.8 U	0.8 U	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	26	NA	NA	NA	NA	260	7.3	12 J	8.1	NA	32	11	NA	100	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	07-01 10/24/11	07-01 11/08/12	07-01 06/06/13	07-02 09/20/01	07-02 06/20/02	07-02 04/02/03	11-120 09/25/01	11-140 09/28/01	20-100 09/21/01	20-100 09/23/09	20-101R 11/15/01	20-101R 06/19/02	20-101R 10/11/04	20-101RD 11/15/01	20-101RD 03/27/03	20-101RD 10/11/04	20-102 09/25/01
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	5	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	1,800 D	2,400 D	860	NA	1 U	0.4 J	11
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ [1 UJ]	1 UJ	1 UJ	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	30 U	1 U	1 U	30 U	NA	1 U	30 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	2.8	4.4	1	NA	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	7	3	2	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5,900 D	12,000 D	3,470 J	NA	3.3	4 J	0.69 J
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	14	9.2	55	NA	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	2 U	5 U	5 U	2 U	NA	5 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	2.5	4.4	3	NA	17	10	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.2	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 U	20 U	25 U	25 UJ	25 U	25 U [25 U]	25 U	25 U	20 U	13 J	32 J	30 U	NA	25 U	30 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	10 U	50 U	50 U	1 U	NA	50 U	1 U	50 U
Acetone	ug/L	40	20 U	20 U	0.81 J	25 U	25 U	25 U [25 U]	0.76 J	25 U	1	25 U	25 U	4 J	NA	25 U	10 J	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 UJ	1 U
Bromomethane	ug/L	2 U	2 U	2 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	2 U	1 UJ	1 U	2 UJ	NA	1 U	2 UJ	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 UJ	NA	5 U	5 UJ	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1,300 JD	2,200 D	1,620 J	NA	6,400 D	7,400 J	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	5	4	2	17	13	6.4	1 U [1 U]	1 U	1 U	1 U	1.8	1.2	0.9 J	NA	1 U	1 U	5.4
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	1 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	1 U	5 U	5 U	1 U	NA	5 U	1 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	1 U	5 U	5 U	1 U	NA	5 U	1 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	1 U	2 U	2 U	1 U	NA	2 U	1 U	2 U
Methyl acetate	ug/L	10 U	10 U	10 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	10 U	5 U	5 U	10 U	NA	5 U	10 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	3.4 J	5 U	5 U	NA	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U	20 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	20 U	1 U	1 U	20 U	NA	1 U	20 U	1 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 UJ	5 U	NA	5 U	5	5 U
Naphthalene	ug/L	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	07-01 10/24/11	07-01 11/08/12	07-01 06/06/13	07-02 09/20/01	07-02 06/20/02	07-02 04/02/03	11-120 09/25/01	11-140 09/28/01	20-100 09/21/01	20-100 09/23/09	20-101R 11/15/01	20-101R 06/19/02	20-101R 10/11/04	20-101RD 11/15/01	20-101RD 03/27/03	20-101RD 10/11/04	20-102 09/25/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	33	11	6	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1.8
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1	1 U	1 U	1 U	1 U	1 U [1 U]	0.78 J	1 U	0.1	1 U	1 U	1 U	NA	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1.2	1.1	1 U	1 U [1 U]	1 U	1 U	1 U	5.1 J	3.2	3 J	NA	1 U	1 U	1.2
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	5	9	6	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	44
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	3.3	2.4	1.2	1 U [1 U]	1 U	1 U	1 U	280 D	520 D	280	NA	62	107	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	4.3 U	NA	NA	4 U [4 U]	4.4 UJ	4.2 U	NA	4 U	NA	NA	NA	NA	NA	4 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	11 U	NA	NA	10 U [10 U]	11 UJ	11 U	NA	10 U	NA	NA	NA	NA	NA	10 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2-Chlorophenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2-Methylnaphthalene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2-Methylphenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
2-Nitroaniline	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
3&4-Methylphenol	ug/L	NA	NA	NA	11 UJ	NA	NA	10 U [10 U]	11 UJ	11 UJ	NA	10 UJ	NA	NA	NA	NA	NA	10 U
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
4-Chloroaniline	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	R	NA	NA	5 U [5 U]	5.6 UJ	R	NA	5 U	NA	NA	NA	NA	NA	5 U
4-Nitroaniline	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
Acenaphthene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Acenaphthylene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Acetophenone	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Anthracene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Atrazine	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Benzaldehyde	ug/L	NA	NA	NA	5.4 UJ	NA	NA	5 U [5 U]	5.6 UJ	5.3 UJ	NA	5 UJ	NA	NA	NA	NA	NA	5 U
Benzo(a)anthracene	ug/L	NA	NA	NA	1.1 U	NA	NA	1 U [1 U]	1.1 UJ	1.1 U	NA	1 U	NA	NA	NA	NA	NA	1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	2.2 U	NA	NA	2 U [2 U]	2.2 UJ	2.1 U	NA	2 U	NA	NA	NA	NA	NA	2 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2.2 U	NA	NA	2 U [2 U]	2.2 UJ	2.1 U	NA	2 U	NA	NA	NA	NA	NA	2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 UJ	NA	NA	NA	NA	NA	5 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1.1 U	NA	NA	1 U [1 U]	1.1 UJ	1.1 U	NA	1 U	NA	NA	NA	NA	NA	1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	3.33 J	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Butylbenzylphthalate	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Caprolactam	ug/L	NA	NA	NA	11 U	NA	NA	10 U [10 U]	11 UJ	11 U	NA	10 U	NA	NA	NA	NA	NA	10 U
Carbazole	ug/L	NA	NA	NA	11 U	NA	NA	10 U [10 U]	11 UJ	11 U	NA	10 U	NA	NA	NA	NA	NA	10 U
Chrysene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2.2 U	NA	NA	2 U [2 U]	2.2 UJ	2.1 U	NA	2 U	NA	NA	NA	NA	NA	2 U
Dibenzofuran	ug/L	NA	NA	NA	4.3 U	NA	NA	4 U [4 U]	4.4 UJ	4.2 U	NA	4 U	NA	NA	NA	NA	NA	4 U
Diethylphthalate	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	07-01 10/24/11	07-01 11/08/12	07-01 06/06/13	07-02 09/20/01	07-02 06/20/02	07-02 04/02/03	11-120 09/25/01	11-140 09/28/01	20-100 09/21/01	20-100 09/23/09	20-101R 11/15/01	20-101R 06/19/02	20-101R 10/11/04	20-101RD 11/15/01	20-101RD 03/27/03	20-101RD 10/11/04	20-102 09/25/01
Dimethylphthalate	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Fluoranthene	ug/L	NA	NA	NA	2.2 U	NA	NA	2 U [2 U]	2.2 UJ	2.1 U	NA	2 U	NA	NA	NA	NA	NA	2 U
Fluorene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	NA	NA	NA	1.1 U	NA	NA	1 U [1 U]	1.1 UJ	1.1 U	NA	1 U	NA	NA	NA	NA	NA	1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Hexachloroethane	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2.2 U	NA	NA	2 U [2 U]	2.2 UJ	2.1 U	NA	2 U	NA	NA	NA	NA	NA	2 U
Isophorone	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Methylphenols, Total	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 U	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Naphthalene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Nitrobenzene	ug/L	NA	NA	NA	2.2 U	NA	NA	2 U [2 U]	2.2 UJ	2.1 U	NA	2 U	NA	NA	NA	NA	NA	2 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Pentachlorophenol	ug/L	NA	NA	NA	22 U	NA	NA	20 U [20 U]	22 UJ	21 U	NA	20 U	NA	NA	NA	NA	NA	20 U
Phenanthrene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Phenol	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
Pyrene	ug/L	NA	NA	NA	5.4 U	NA	NA	5 U [5 U]	5.6 UJ	5.3 U	NA	5 U	NA	NA	NA	NA	NA	5 U
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1221	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1232	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1242	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1248	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1254	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1260	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 UJ	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 UJ	0.1 U	NA	0.1 U	NA	NA	0.10 U	NA	NA	0.11 U
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U [0.11 U]	0.12 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	1.2 UJ	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U	NA	24	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	97 J	NA	370 J	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 UJ	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.041 J	NA	0.2 UJ	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.2	NA	0.6 U	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.17 J	NA	0.91	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.3	NA	0.6 U	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	5 U	NA	NA	2.7 J [3.3 J]	1.7 J	6.3	NA	18	NA	NA	NA	NA	NA	5.8
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.11 J	NA	0.62	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	9.2 J	NA	420 J	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	07-01 10/24/11	07-01 11/08/12	07-01 06/06/13	07-02 09/20/01	07-02 06/20/02	07-02 04/02/03	11-120 09/25/01	11-140 09/28/01	20-100 09/21/01	20-100 09/23/09	20-101R 11/15/01	20-101R 06/19/02	20-101R 10/11/04	20-101RD 11/15/01	20-101RD 03/27/03	20-101RD 10/11/04	20-102 09/25/01
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.3	NA	0.4 U	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA	1.4 U	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.15 J	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 UJ	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	1.2	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	6.6 J	NA	39 J	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	NA	NA	1.2 U [1.2 U]	1.2 U	1.2 U	NA	1.2 U	NA	NA	1.2 U	NA	NA	1.2 U
Arsenic (Dissolved)	ug/L	NA	NA	NA	1 U	NA	NA	3.1 J [2.6 J]	1 U	1 U	NA	28	NA	NA	28	NA	NA	3.7 J
Barium (Dissolved)	ug/L	NA	NA	NA	73	NA	NA	340 [320]	R	81	NA	430	NA	NA	430	NA	NA	240
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	0.4 U [0.4 U]	0.4 UJ	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U [0.21]	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.54
Chromium Total (Dissolved)	ug/L	NA	NA	NA	0.6 U	NA	NA	0.6 [0.72]	0.6 UJ	0.6 U	NA	3.4	NA	NA	3.4	NA	NA	0.69
Cobalt (Dissolved)	ug/L	NA	NA	NA	0.33	NA	NA	0.62 [0.62]	1.9	0.2 U	NA	0.71	NA	NA	0.71	NA	NA	2.3
Copper (Dissolved)	ug/L	NA	NA	NA	5.4	NA	NA	2.6 [2]	3 J	8	NA	0.6 U	NA	NA	0.6	NA	NA	9.8
Cyanide (dissolved)	ug/L	NA	NA	NA	5 U	NA	NA	3.5 J [3.8 J]	2.8 J	6.6	NA	18	NA	NA	18	NA	NA	5.2
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	0.4 U [0.4 U]	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	NA	NA	370	NA	NA	130 J [120 J]	220	3.2	NA	410 J	NA	NA	410	NA	NA	1,000 J
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	NA	3.4	NA	NA	15 J [14 J]	5.3	2	NA	0.4 U	NA	NA	0.4	NA	NA	11 J
Selenium (Dissolved)	ug/L	NA	NA	NA	1.4 U	NA	NA	4.5 J [4.9 J]	2	9	NA	1.4 U	NA	NA	1.4 U	NA	NA	1.4 U
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	NA	NA	0.4 U [0.4 U]	0.4 UJ	0.4 U	NA	0.5	NA	NA	0.5	NA	NA	0.4 U
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	NA	NA	0.8 U [0.8 U]	0.8 U	0.8 U	NA	1.2 J	NA	NA	1.2 J	NA	NA	0.8 U
Zinc (Dissolved)	ug/L	NA	NA	NA	6 U	NA	NA	9.2 [9.4]	81 J	10	NA	26 U	NA	NA	26	NA	NA	11
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.705	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	64.9 -	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.15	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	75	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.32	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.84	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	890	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-102 06/21/02	20-102 03/27/03	20-102 06/05/13	20-102 09/17/13	20-103N 09/21/01	20-103N 06/19/02	20-105R 12/06/01	20-105R 06/19/02	20-105R 03/26/03	20-105R 06/05/13	20-105R 09/17/13	20-120 09/21/01	20-120 06/17/02	20-121 09/21/01	20-121 06/14/02	20-121 03/26/03	20-140 02/22/02	20-140 06/20/02
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1.5 J	1.7	1 U	2	1 U	1 U	1,200 D	710 D	540 D	58	212 Y	35	23	210 D	110 D [110 D]	97	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	5 UY	1 UJ	1 U	1 UJ	1 U [1 U]	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	30 U	30 U	1 U	1 U	1 U	1 U	1 U	30 U	200 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	3.3	1.5 [1.6]	1.1	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	150 D	78	86 D	1 U	32 Y	4	5.4	690 D	370 D [380 D]	200 D	1.8	1.7
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	73	40	47	1 U	8 Y	1 U	1 U	13	4.9 [5.3]	5.8	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	2 U	2 U	5 U	5 U	5 U	5 U	5 U	2 U	10 UY	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	3.2	1.9 [2]	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 UJ	25 U	20 U	20 U	25 U	25 U	25 U	25 U	25 U	20 U	100 UY	25 U	25 U	25 U	25 U [25 U]	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	300 UY	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	10 U	10 U	50 U	50 U	50 U	50 UJ	50 U	10 U	50 UY	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U
Acetone	ug/L	25 U	25 U	20 U	20 U	25 U	1.7 J	25 U	1.5 J	25 U	20 U	100 UY	25 U	25 U	25 U	25 U [25 U]	25 U	25 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	0.5 J	1 U [1 U]	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Bromoform	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Bromomethane	ug/L	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	10 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 UY	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	66	16	63	1 U	5 UY	1 U	1 U	21	9.5 [9]	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1.4	1 U	1	19	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	0.77 J	250 D	160 D [170 D]	60	2.6 J	2.9
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	1 U	5 UY	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	1 U	5 UY	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 UY	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 UJ	10 U	10 U	5 U	5 U	5 U	5 U	5 U	10 U	50 UY	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 UY	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	20 U	20 U	1 U	1 U	1 U	1 U	1 U	20 U	100 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	30 UY	5 U	5 UJ	5 U	5 UJ [5 UJ]	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	5 U	1 U	NA	NA	NA	NA	NA	5 U	5 UY	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	1 U	5 UY	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-102 06/21/02	20-102 03/27/03	20-102 06/05/13	20-102 09/17/13	20-103N 09/21/01	20-103N 06/19/02	20-105R 12/06/01	20-105R 06/19/02	20-105R 03/26/03	20-105R 06/05/13	20-105R 09/17/13	20-120 09/21/01	20-120 06/17/02	20-121 09/21/01	20-121 06/14/02	20-121 03/26/03	20-140 02/22/02	20-140 06/20/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	0.74 J	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	5 UY	1 U	1 UJ	1 U	1 UJ [1 UJ]	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	3	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	5.2	3 [3.2]	1.7	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	12	7.8	2	16	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	2.6	1.9	1 U	0.58 J [0.61 J]	1 U	95	86
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	1 U	1 U	0.53 J	1 U [1 U]	1 U	1.9	1
SVOC																			
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	4.2 U	NA	4 U	NA	NA	NA	NA	4 U	NA	4 U	NA	NA	4 U	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	11 U	NA	10 U	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	10 U	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	21 UJ	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	11 UJ	NA	10 UJ	NA	NA	NA	NA	10 UJ	NA	10 UJ	NA	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	R	NA	5 U	NA	NA	NA	NA	R	NA	R	NA	NA	5 U	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
Acenaphthene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Anthracene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Atrazine	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	5.3 UJ	NA	5 U	NA	NA	NA	NA	5 UJ	NA	5 UJ	NA	NA	5 UJ	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	1.1 U	NA	1 U	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	1 U	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	2.1 U	NA	2 U	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	2.1 U	NA	2 U	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	1.1 U	NA	1 U	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	11 U	NA	10 U	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	10 U	NA
Carbazole	ug/L	NA	NA	NA	NA	11 U	NA	10 U	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	10 U	NA
Chrysene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	2.1 U	NA	2 U	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	2 U	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	4.2 U	NA	4 U	NA	NA	NA	NA	4 U	NA	4 U	NA	NA	4 U	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	1.64 J	NA	NA	5 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-102 06/21/02	20-102 03/27/03	20-102 06/05/13	20-102 09/17/13	20-103N 09/21/01	20-103N 06/19/02	20-105R 12/06/01	20-105R 06/19/02	20-105R 03/26/03	20-105R 06/05/13	20-105R 09/17/13	20-120 09/21/01	20-120 06/17/02	20-121 09/21/01	20-121 06/14/02	20-121 03/26/03	20-140 02/22/02	20-140 06/20/02
Dimethylphthalate	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Fluoranthene	ug/L	NA	NA	NA	NA	2.1 U	NA	2 U	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	2 U	NA
Fluorene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	1.1 U	NA	1 U	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	1 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	2.1 U	NA	2 U	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	2 U	NA
Isophorone	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	2.1 U	NA	2 U	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	20 U	NA
Phenanthrene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Phenol	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
Pyrene	ug/L	NA	NA	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	5 U	NA
PCB																			
Aroclor-1016	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	0.11 U	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Inorganic																			
Antimony	ug/L	NA	0.34 J	NA	NA	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	NA	NA	NA	NA	NA	1.2 U [1.2 U]	NA	NA	1.2 U
Arsenic	ug/L	NA	1 U	NA	NA	1 U	1.7 U	8.5	6.5	4.1	NA	NA	NA	NA	NA	0.76 J [0.79 J]	NA	NA	1 U
Barium	ug/L	NA	220	NA	NA	15 J	28	340	100	200	NA	NA	NA	NA	NA	83 [83]	NA	NA	260
Beryllium	ug/L	NA	0.4 U	NA	NA	0.4 U	0.4 UJ	0.4 U	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	0.4 UJ [0.4 UJ]	NA	NA	0.4 U
Cadmium	ug/L	NA	0.43	NA	NA	0.2 U	0.2 U	0.15 J	0.25	0.31	NA	NA	NA	NA	NA	0.046 J [0.054 J]	NA	NA	0.77
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	1.9	NA	NA	2.1	0.74	1.6	4	1.2	NA	NA	NA	NA	NA	0.3 J [0.31 J]	NA	NA	0.93
Cobalt	ug/L	NA	3.3	NA	NA	0.57	0.29	5.7	2.6	2.9	NA	NA	NA	NA	NA	4.8 [4.9]	NA	NA	9.1
Copper	ug/L	NA	6.5	NA	NA	6.1	4.1 J	2.5	8.2 J	2.2	NA	NA	NA	NA	NA	4.7 [3.4 U]	NA	NA	12
Cyanide (total)	ug/L	NA	7.6	NA	NA	1.6 J	5 U	1.4 J	5 U	3.2 J	5 U	5 U	76	NA	1.4 J	NA	NA	5 U	2.6 J
Lead	ug/L	NA	0.71	NA	NA	0.35 J	0.34 J	0.38 J	4.9	0.34 J	3 U	3 U	NA	NA	NA	0.11 J [0.72]	NA	NA	1.4
Manganese	ug/L	NA	1,000	NA	NA	410 J	150	1,900	340	980	43	31	NA	NA	NA	2,000 J [2,000 J]	NA	NA	1,700
Mercury	ug/L	NA	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	0.2 U [0.124 J]	NA	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-102 06/21/02	20-102 03/27/03	20-102 06/05/13	20-102 09/17/13	20-103N 09/21/01	20-103N 06/19/02	20-105R 12/06/01	20-105R 06/19/02	20-105R 03/26/03	20-105R 06/05/13	20-105R 09/17/13	20-120 09/21/01	20-120 06/17/02	20-121 09/21/01	20-121 06/14/02	20-121 03/26/03	20-140 02/22/02	20-140 06/20/02
Nickel	ug/L	NA	23	NA	NA	5.2	3.7	15	9.4	20	NA	NA	NA	NA	NA	19 [20]	NA	NA	24
Selenium	ug/L	NA	1.6 U	NA	NA	8 J	7.6	1.4 U	1.4 U	1.6 U	5 U	5 U	NA	NA	NA	1.4 U [1.4 U]	NA	NA	1.5
Silver	ug/L	NA	0.4 U	NA	NA	0.4 U	0.4 U	1.5	0.4 U	0.17 J	0.5 U	0.5 U	NA	NA	NA	0.4 U [0.4 U]	NA	NA	0.4 UJ
Thallium	ug/L	NA	0.2 U	NA	NA	0.21 U	0.2 U	0.081 J	0.13 J	0.048 J	NA	NA	NA	NA	NA	0.2 U [0.21 U]	NA	NA	0.16 J
Vanadium	ug/L	NA	0.8 U	NA	NA	1.1	0.38 J	0.8 U	7.5	0.8 U	5 U	4 U	NA	NA	NA	0.8 U [0.8 U]	NA	NA	0.8 U
Zinc	ug/L	NA	29	NA	NA	5.9 J	9.1 J	10	26 J	10	NA	NA	NA	NA	NA	13 [8.4]	NA	NA	17 UJ
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	1.2 J	NA	1.2 U	NA	NA	NA	NA	1.2 U	NA	1.2 U	NA	NA	1.2 UJ	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	1 U	NA	7	NA	NA	NA	NA	2.7 J	NA	1.2 J	NA	NA	2.4 J	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	12	NA	210	NA	NA	NA	NA	510	NA	71	NA	NA	210 J	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	0.4 U	NA	4.2 J	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	5.6 J	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	0.2 U	NA	0.65	NA	NA	NA	NA	0.44	NA	0.2 U	NA	NA	0.98 J	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	1	NA	2.1	NA	NA	NA	NA	3.5	NA	0.6 U	NA	NA	19 J	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	0.3	NA	3.9	NA	NA	NA	NA	0.85	NA	5.1	NA	NA	6.9 J	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	7.3	NA	2	NA	NA	NA	NA	10	NA	8.8	NA	NA	7.4 J	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	1.5 J	NA	1.7 J	NA	NA	NA	NA	76	NA	5 U	NA	NA	2.3 J	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	0.53 J	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	380	NA	1,200	NA	NA	NA	NA	1.6	NA	1,800	NA	NA	2,200 J	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	3.8	NA	9.4	NA	NA	NA	NA	13	NA	30	NA	NA	23 J	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	6.9	NA	5.3	NA	NA	NA	NA	1.4 U	NA	1.4 U	NA	NA	1.8 J	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	0.4 U	NA	0.49	NA	NA	NA	NA	0.56	NA	0.4 U	NA	NA	0.42 J	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	0.33 J	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	0.8 U	NA	0.8 U	NA	NA	NA	NA	0.8 U	NA	0.8 U	NA	NA	3.8 J	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	19	NA	10	NA	NA	NA	NA	24	NA	19	NA	NA	29 J	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-140 03/31/03	20-140 10/11/04	20-143 10/12/04	20-144 02/22/02	20-144 06/18/02	20-145 09/25/01	20-145 06/18/02	20-500 09/21/01	20-500 06/14/02	20-500 03/26/03	20-500R 11/02/06	20-500R 10/26/07	20-500R 09/15/08	20-500R 09/23/09	20-500R 10/14/10	20-500R 10/20/11	20-500R 11/07/12	20-500R 06/05/13
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	30 U	30 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 U	30 U	30 U	30 U	NA	200 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,1-Dichloroethane	ug/L	3.5	3 J	1 U	1 U	1 U	1.6	1 U	0.65 J	1 U	1.2	5 U	1 U	1 U	0.2	5 U	5 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	2 U	2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	2 U	2 U	2 U	30 U	10 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	30 U	5 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	30 U	30 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	100 UJ	20 U	20 U	20 U	100 U	100 U	20 U	20 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	300 UJ	50 U	50 UJ	50 U	300 U	300 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	1 U	1 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	10 U	300 U	50 U	10 U	10 U
Acetone	ug/L	25 U	30 U	30 U	25 U	5.4 J	25 U	25 U	25 U	25 U	25 U	100 UJ	20 U	20 U	20 U	300 U	100 U	20 U	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	0.93 J	1 U	1 U	4.7	1.3	1.7	25	65	0.4 J	0.6	5 U	5 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Bromoform	ug/L	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Bromomethane	ug/L	1 U	2 UJ	2 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	10 U	2 U	2 U	2 U	30 U	10 U	2 U	2 U
Carbon Disulfide	ug/L	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 U	5 U	5 U	5 U	30 U	30 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Chloroethane	ug/L	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	30 U	5 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	30 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1.9	1	1 U	1 U	1 U	1.9	1 U	1 U	1 U	12	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Cyclohexane	ug/L	5 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	8 U	1 UJ	1 U	NA	5 U	1 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	30 U	5 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	30 U	5 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	429	131	4	1 U	12	10	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Isopropylbenzene	ug/L	5 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	326	252	8	6	80	123	1 U	1 U
m&p-Xylene	ug/L	2 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	74	14	1 U	1 U	10 U	10 U	2 U	2 U
Methyl acetate	ug/L	5 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	10 U	10 U	10 U	NA	50 U	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.68 J	5 U	5 U	30 U	5 U	5 U	5 U	30 U	30 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	20 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 J	20 J	5 J	0.7	NA	100 U	20 U	20 U
Methylene Chloride	ug/L	5 U	0.6 J	0.5 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 U	5 U	5 U	5 U	30 U	30 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	30 U	5 U	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	244	359	1 U	1 U
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 J	0.8 J	1 U	1 U	5 U	5 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-140 03/31/03	20-140 10/11/04	20-143 10/12/04	20-144 02/22/02	20-144 06/18/02	20-145 09/25/01	20-145 06/18/02	20-500 09/21/01	20-500 06/14/02	20-500 03/26/03	20-500R 11/02/06	20-500R 10/26/07	20-500R 09/15/08	20-500R 09/23/09	20-500R 10/14/10	20-500R 10/20/11	20-500R 11/07/12	20-500R 06/05/13
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500 U	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	0.63 J	9.2	1 U	1 U	1 U	1 U	1 U	0.9 J	1 U	1 U	0.1	5 U	5 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Trichloroethene	ug/L	61	39	1 U	1 U	1 U	1.1	1.2	1 U	1 U	4.2	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Vinyl Chloride	ug/L	19 J	7	1 U	0.77 J	0.54 J	3.2	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U
SVOC																			
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	4.2 U	NA	4.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	11 U	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	11 UJ	NA	11 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	11 U	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	11 U	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	4.2 U	NA	4.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-140 03/31/03	20-140 10/11/04	20-143 10/12/04	20-144 02/22/02	20-144 06/18/02	20-145 09/25/01	20-145 06/18/02	20-500 09/21/01	20-500 06/14/02	20-500 03/26/03	20-500R 11/02/06	20-500R 10/26/07	20-500R 09/15/08	20-500R 09/23/09	20-500R 10/14/10	20-500R 10/20/11	20-500R 11/07/12	20-500R 06/05/13
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	R	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	ug/L	1.2 U	NA	NA	NA	NA	NA	1.2 U	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	1 U	NA	NA	NA	NA	NA	1.6 U	NA	NA	50	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	240	NA	NA	NA	NA	NA	69	NA	NA	400	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	0.4 U	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	0.57	NA	NA	NA	NA	NA	0.51	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	0.92	NA	NA	NA	NA	NA	1.8	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	6	NA	NA	NA	NA	NA	1.7	NA	NA	2.2	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	12	NA	NA	NA	NA	NA	52	NA	NA	9.7	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	2.5 J	NA	NA	NA	NA	1.7 J	5 U	5 U	NA	29	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	1.1	NA	NA	NA	NA	NA	0.19 J	NA	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	1,900 J	NA	NA	NA	NA	NA	420	NA	NA	440	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-140 03/31/03	20-140 10/11/04	20-143 10/12/04	20-144 02/22/02	20-144 06/18/02	20-145 09/25/01	20-145 06/18/02	20-500 09/21/01	20-500 06/14/02	20-500 03/26/03	20-500R 11/02/06	20-500R 10/26/07	20-500R 09/15/08	20-500R 09/23/09	20-500R 10/14/10	20-500R 10/20/11	20-500R 11/07/12	20-500R 06/05/13
Nickel	ug/L	30	23	NA	NA	NA	NA	22	NA	NA	17	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	1.6 U	NA	NA	NA	NA	NA	0.41 J	NA	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.28 J	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	0.058 J	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	0.8 U	NA	NA	NA	NA	NA	0.8 U	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	13	NA	NA	NA	NA	NA	180 J	NA	NA	21	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	1.2 U	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	1.7	NA	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	120 J	NA	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.6 U	NA	0.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.68	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	3.2	NA	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	1.8 J	NA	2.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	890 J	NA	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	10	NA	9.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	1.4 U	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.4 UJ	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	55	NA	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.253	7.405	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	192 -	76.9 -	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.77	6.99	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65	68	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.17	17.91	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.98	1.6	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,220	480	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-504 09/21/01	20-FD10R 11/07/12	20-FP6 09/25/01	20-FP6 02/20/02	20-FP6 06/19/02	20-FP6 03/27/03	20-FP10 09/25/01	20-FP10 02/22/02	20-FP10 11/02/06	20-FP10R 10/26/07	20-FP10R 09/15/08	20-FP10R 09/23/09	20-FP10R 10/14/10	20-FP10R 10/24/11	20-FP10R 11/07/12	20-FP11 09/25/01	20-FP11 06/19/02
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	0.71 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	30 U	1 U	1 U	1 U	1 U	1 U	1 U	30 U	30 U	30 U	30 U	NA	30 U	30 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5	2	13	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	2 U	5 U	5 U	0.63 J	5 U	5 U	5 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	20 U	25 U	25 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	30 U	20 U	20 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	10 U	50 U	50 U	50 UJ	50 U	50 U	50 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	50 U	50 U
Acetone	ug/L	25 U	20 U	25 U	25 U	3.1 J	25 U	25 U	25 U	20 U	20 U	20 U	2	50 U	20 U	20 U	25 U	2.1 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA
Benzene	ug/L	1 U	9	0.65 J	1 U	0.5 J	1 U	6.1	2.2 U	0.3 J	0.2 J	1 U	3	6	18	9	0.69 J	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	1 U	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 UJ	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 UJ	1 U
cis-1,2-Dichloroethene	ug/L	1 U	4	1 U	1 U	0.62 J	1 U	1 U	1 U	3	2	2	3	3	8	4	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	1 U	5 U	5 U	5 U	5 U	1.3 J	5 U	1 U	0.4 J	1 UJ	1 U	NA	1	1 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	20 U	20 U	20 U	0.2	NA	20 U	20 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Naphthalene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-504 09/21/01	20-FD10R 11/07/12	20-FP6 09/25/01	20-FP6 02/20/02	20-FP6 06/19/02	20-FP6 03/27/03	20-FP10 09/25/01	20-FP10 02/22/02	20-FP10 11/02/06	20-FP10R 10/26/07	20-FP10R 09/15/08	20-FP10R 09/23/09	20-FP10R 10/14/10	20-FP10R 10/24/11	20-FP10R 11/07/12	20-FP11 09/25/01	20-FP11 06/19/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	7	8	2	2	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	2.3	0.57 J	1.2	1 U	1 U	1 U	1 U	1 U	0.6 J	2	2	2	1 U	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	4.4 U	NA	4.4 U	NA	NA	NA	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
2,4-Dichlorophenol	ug/L	11 U	NA	11 U	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
2,4-Dimethylphenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,4-Dinitrophenol	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Chloronaphthalene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Chlorophenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Methylnaphthalene	ug/L	5.6 U	NA	1.04 J	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Methylphenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Nitroaniline	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
2-Nitrophenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
3&4-Methylphenol	ug/L	11 UJ	NA	11 UJ	NA	NA	NA	11 UJ	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Chloroaniline	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	R	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Nitroaniline	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4-Nitrophenol	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
Acenaphthene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Acenaphthylene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Acetophenone	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Anthracene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Atrazine	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Benzaldehyde	ug/L	5.6 UJ	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Benzo(a)anthracene	ug/L	1.1 U	NA	1.1 U	NA	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Benzo(a)pyrene	ug/L	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	1.1 U	NA	1.1 U	NA	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Butylbenzylphthalate	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Caprolactam	ug/L	11 U	NA	11 U	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Carbazole	ug/L	11 U	NA	11 U	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Chrysene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Dibenzofuran	ug/L	4.4 U	NA	4.4 U	NA	NA	NA	4.3 U	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
Diethylphthalate	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-504 09/21/01	20-FD10R 11/07/12	20-FP6 09/25/01	20-FP6 02/20/02	20-FP6 06/19/02	20-FP6 03/27/03	20-FP10 09/25/01	20-FP10 02/22/02	20-FP10 11/02/06	20-FP10R 10/26/07	20-FP10R 09/15/08	20-FP10R 09/23/09	20-FP10R 10/14/10	20-FP10R 10/24/11	20-FP10R 11/07/12	20-FP11 09/25/01	20-FP11 06/19/02
Dimethylphthalate	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Di-n-Butylphthalate	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Di-n-Octylphthalate	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Fluoranthene	ug/L	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Fluorene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Hexachlorobenzene	ug/L	1.1 U	NA	1.1 U	NA	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Hexachlorobutadiene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Hexachloroethane	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Isophorone	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Methylphenols, Total	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Naphthalene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Nitrobenzene	ug/L	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Pentachlorophenol	ug/L	22 U	NA	22 U	NA	NA	NA	22 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
Phenanthrene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Phenol	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Pyrene	ug/L	5.6 U	NA	5.6 U	NA	NA	NA	5.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
PCB																		
Aroclor-1016	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1221	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1232	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1242	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1248	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1254	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1260	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Total PCBs (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	48	NA	1.3 J	NA	NA	NA	15	NA	NA	NA	NA	NA	NA	NA	NA	3.5 J	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	20-504 09/21/01	20-FD10R 11/07/12	20-FP6 09/25/01	20-FP6 02/20/02	20-FP6 06/19/02	20-FP6 03/27/03	20-FP10 09/25/01	20-FP10 02/22/02	20-FP10 11/02/06	20-FP10R 10/26/07	20-FP10R 09/15/08	20-FP10R 09/23/09	20-FP10R 10/14/10	20-FP10R 10/24/11	20-FP10R 11/07/12	20-FP11 09/25/01	20-FP11 06/19/02
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	1.2 U	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	1.4 J	NA	1 U	NA	NA	NA	38	NA	NA	NA	NA	NA	NA	NA	NA	4.5	NA
Barium (Dissolved)	ug/L	64	NA	1,800 J	NA	NA	NA	560 J	NA	NA	NA	NA	NA	NA	NA	NA	180 J	NA
Beryllium (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	6.5	NA	0.6 U	NA	NA	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	0.71	NA
Cobalt (Dissolved)	ug/L	0.47	NA	0.37	NA	NA	NA	2.6	NA	NA	NA	NA	NA	NA	NA	NA	1.9	NA
Copper (Dissolved)	ug/L	11	NA	2.1	NA	NA	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA	8.8	NA
Cyanide (dissolved)	ug/L	46	NA	5 U	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	2.4 J	NA
Lead (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	1.3	NA	310 J	NA	NA	NA	180 J	NA	NA	NA	NA	NA	NA	NA	NA	310 J	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	6	NA	1.5	NA	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	7.3	NA
Selenium (Dissolved)	ug/L	6.1 J	NA	1.4 U	NA	NA	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	5.8	NA
Silver (Dissolved)	ug/L	0.4 U	NA	0.4 UJ	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA
Thallium (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	0.8 U	NA	0.8 U	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	12	NA	53	NA	NA	NA	25	NA	NA	NA	NA	NA	NA	NA	NA	20	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.962	6.328	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	105.8 -	102.5 -	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.38	7.67	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65	70	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.16	17.27	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.63	7.78	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	330	160	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	30-100 09/21/01	30-120 09/25/01	30-140 09/25/01	30-140 06/13/02	30-140 03/27/03	30-140 10/04/04	31-5 09/17/01	31-5 06/21/02	31-6 09/17/01	31-6 06/21/02	31-8 09/17/01	31-8 06/24/02	31-E 12/14/01	31-W 12/14/01	32-5 12/14/01	32-6 12/14/01	36-1 12/14/01
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	2	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1 UJ	1 UJ	1 UJ	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	NA	1 U	30 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	23	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	0.57 J	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	NA	5 U	2 U	5 U	NA	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	NA	25 U	30 U	25 U	NA	25 U	25 UJ	190 JD	140 EJ	NA	NA	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	NA	50 U	50 U	50 U	NA	50 U	50 U	24 J	50 U [50 U]	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	NA	50 U	1 U	50 U	NA	50 U	50 U	6.6 J	50 U [50 U]	NA	NA	NA	NA	NA
Acetone	ug/L	25 U	25 U	25 U	NA	25 U	30 U	25 U	NA	25 U	25 U	460 JD	240 JD [270 JD]	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	930 D	700 D [720 D]	1 U	1 U	1 U	1 U	1
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromoform	ug/L	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	NA	1 U	1 UJ	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Bromomethane	ug/L	1 U	1 U	1 U	NA	1 U	2 UJ	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chloroethane	ug/L	39	1 UJ	1 UJ	NA	1 U	1 UJ	1 U	NA	1 U	1 U	1 U	6.1 [6]	NA	NA	NA	NA	NA
Chloroform	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Chloromethane	ug/L	1 U	1 UJ	1 UJ	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Cyclohexane	ug/L	5 U	5 U	5 U	NA	5 U	1 U	5 U	NA	5 U	5 U	290 D	160 D [170 D]	NA	NA	NA	NA	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1.9 J	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	610 D	1,000 D [1,000 D]	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	NA	5 U	1 U	5 U	NA	5 U	5 U	41	66 [69]	NA	NA	NA	NA	NA
m&p-Xylene	ug/L	2 U	2 U	2 U	NA	2 U	1 U	2 U	NA	2 U	2 U	740 D	1,100 D [1,100 D]	2 U	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	NA	5 UJ	10 U	5 U	NA	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Methylcyclohexane	ug/L	1 U	1 U	1 U	NA	1 U	20 U	1 U	NA	1 U	1 U	150 D	130 D [150 D]	NA	NA	NA	NA	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U [5 U]	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	430 D	590 D [600 D]	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	30-100 09/21/01	30-120 09/25/01	30-140 09/25/01	30-140 06/13/02	30-140 03/27/03	30-140 10/04/04	31-5 09/17/01	31-5 06/21/02	31-6 09/17/01	31-6 06/21/02	31-8 09/17/01	31-8 06/24/02	31-E 12/14/01	31-W 12/14/01	32-5 12/14/01	32-6 12/14/01	36-1 12/14/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 UJ	1 UJ	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	540 D	140 D [140 D]	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	NA	NA	NA	NA	NA
SVOC																		
1,1'-Biphenyl	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4.4 U	4.3 U	4 U	NA	NA	NA	4 U	NA	4.2 U	NA	4 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11 U	11 U	10 U	NA	NA	NA	10 U	NA	11 U	NA	10 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	29.4	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	10.5	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	4.8 J	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	11 UJ	11 UJ	10 UJ	NA	NA	NA	10 UJ	NA	11 UJ	NA	6.24 J	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	R	5.4 U	5 U	NA	NA	NA	R	NA	R	NA	R	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	5.6 UJ	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	1.1 U	1.1 U	1 U	NA	NA	NA	1 U	NA	1.1 U	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	2.2 U	2.2 U	2 U	NA	NA	NA	2 U	NA	2.1 U	NA	2 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2.2 U	2.2 U	2 U	NA	NA	NA	2 U	NA	2.1 U	NA	2 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	1.1 U	1.1 U	1 U	NA	NA	NA	1 U	NA	1.1 U	NA	1 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	11 U	11 U	10 U	NA	NA	NA	10 UJ	NA	11 UJ	NA	10 U	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	11 U	11 U	10 U	NA	NA	NA	10 U	NA	11 U	NA	10 U	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2.2 U	2.2 U	2 U	NA	NA	NA	2 U	NA	2.1 U	NA	2 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4.4 U	4.3 U	4 U	NA	NA	NA	4 U	NA	4.2 U	NA	4 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	30-100 09/21/01	30-120 09/25/01	30-140 09/25/01	30-140 06/13/02	30-140 03/27/03	30-140 10/04/04	31-5 09/17/01	31-5 06/21/02	31-6 09/17/01	31-6 06/21/02	31-8 09/17/01	31-8 06/24/02	31-E 12/14/01	31-W 12/14/01	32-5 12/14/01	32-6 12/14/01	36-1 12/14/01
Dimethylphthalate	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	2.2 U	2.2 U	2 U	NA	NA	NA	2 U	NA	2.1 U	NA	2 U	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	1.1 U	1.1 U	1 U	NA	NA	NA	1 U	NA	1.1 U	NA	1 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2.2 U	2.2 U	2 U	NA	NA	NA	2 U	NA	2.1 U	NA	2 U	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	4.8 J	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	63.6	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	2.2 U	2.2 U	2 U	NA	NA	NA	2 U	NA	2.1 U	NA	2 U	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	22 U	22 U	20 U	NA	NA	NA	20 U	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.6 U	5.4 U	5 U	NA	NA	NA	5 U	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.16	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.13	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.29	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.84	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.85	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.11 U	0.11 U	0.11 U	NA	NA	NA	1.69	0.11 U	0.11 U	NA	0.11 U	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA	0.41 J [1.2 U]	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	22 [18]	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	300 J	140	NA	NA	NA	NA	NA	NA	130 [97]	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	0.19 J	0.63	NA	NA	NA	NA	NA	NA	0.044 J [0.2 U]	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	1.5	1.2	NA	NA	NA	NA	NA	NA	0.84 [0.69]	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	2.4	1.3	NA	NA	NA	NA	NA	NA	0.51 [0.4]	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	6.2	2.7	NA	NA	NA	NA	NA	NA	1.3 [1.9]	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	7.8	0.94 J	2.4 J	NA	5 U	NA	5 U	NA	77	NA	3 J	5 U [5 U]	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	0.4 UJ	0.23 J	NA	NA	NA	NA	NA	NA	1.7 [1.4]	2 U	2 U	16	3.7	2 U
Manganese	ug/L	NA	NA	NA	3,100 J	810	2,170	NA	NA	NA	NA	NA	170 J [130 J]	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	30-100 09/21/01	30-120 09/25/01	30-140 09/25/01	30-140 06/13/02	30-140 03/27/03	30-140 10/04/04	31-5 09/17/01	31-5 06/21/02	31-6 09/17/01	31-6 06/21/02	31-8 09/17/01	31-8 06/24/02	31-E 12/14/01	31-W 12/14/01	32-5 12/14/01	32-6 12/14/01	36-1 12/14/01
Nickel	ug/L	NA	NA	NA	9.5	11	NA	NA	NA	NA	NA	NA	3.5 [2.9]	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	1.4 U	1.6 U	NA	NA	NA	NA	NA	NA	1.4 U [1.4 U]	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	0.56 UJ [0.4 UJ]	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	0.21	0.12 J	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	0.8 U [0.8 U]	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	12 J	24	NA	NA	NA	NA	NA	NA	11 [6.9]	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	1.2 U	1.2 U	1.2 U	NA	NA	NA	1.2 U	NA	1.2 U	NA	1.2 U	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	4.8	4.4	1 U	NA	NA	NA	1 U	NA	1 U	NA	16	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	310	120 J	370 J	NA	NA	NA	86	NA	23	NA	200	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	0.4 UJ	0.4 U	0.4 U	NA	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	0.2 U	0.26	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	0.6 U	0.6 U	0.6 U	NA	NA	NA	0.88	NA	1.8	NA	1	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	1.3	0.88	2.2	NA	NA	NA	0.2 U	NA	0.37	NA	0.67	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	6.7 J	1.5	4.1	NA	NA	NA	4.7	NA	12	NA	21	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	7.7	5 U	2.2 J	NA	NA	NA	5 U	NA	79	NA	3.1 J	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	NA	0.4 U	NA	0.4 U	NA	5.8	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	730	780 J	2,100 J	NA	NA	NA	5	NA	4.5	NA	160	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	7.5	5.4	15	NA	NA	NA	2	NA	0.84	NA	4.1	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	2 J	2 U	1.4 U	NA	NA	NA	1.4 U	NA	1.4 U	NA	1.4 U	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.4 UJ	0.4 UJ	0.4 UJ	NA	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	0.2 U	0.25	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	0.8 U	0.8 U	NA	NA	NA	0.8 U	NA	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	22	7.8	12	NA	NA	NA	16	NA	19	NA	28	NA	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-100 09/27/01	36-100 06/13/02	36-100 03/25/03	36-100 06/10/05	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/18/12	36-120 09/27/01	36-121 09/27/01	36-FP1 09/27/01	36-FP1 06/14/02	36-FP1 03/27/03	36-FP1 06/09/05	36-FP1 10/27/11
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	950 JD	740 JD	320 D	231	1 U	NA	0.2 J	0.3 J	0.2 J	NA	1 U	1 U	140 JD [150 JD]	98 D	240 D	186	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	200 U	1 U	NA	30 U	30 U	30 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	200 U	NA
1,1,2-Trichloroethane	ug/L	1 U	5	2.1	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,1-Dichloroethane	ug/L	1,300 D	780 JD	170 D	319	5.9	NA	11	18	20	NA	1 U	1 U	310 JD [320 JD]	110 D	500 D	401	NA
1,1-Dichloroethene	ug/L	120 D	110 JD	23	16	1 U	NA	0.1 J	0.2 J	0.3 J	NA	1 U	1 U	1.7 J [1.6 J]	1.1	5.6	5 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	10 U	5 U	NA	2 U	2 U	2 U	NA	5 U	5 U	5 UJ [5 UJ]	5 U	5 U	10 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,2-Dichloroethane	ug/L	1 U	3	1 U	5 U	1 U	NA	0.5 J	1	1	NA	1 U	1 U	1 UJ [1 UJ]	4.2	4	5 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	3.9 J	25 U	100 U	25 U	NA	20 U	20 U	20 U	NA	25 U	25 U	1.2 J [1.4 J]	25 U	25 U	100 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	300 U	50 U	NA	50 U	50 U	50 U	NA	50 U	50 U	50 UJ [50 UJ]	50 U	50 U	300 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	5 U	50 U	NA	10 U	10 U	10 U	NA	50 U	50 U	50 UJ [50 UJ]	50 U	50 U	5 U	NA
Acetone	ug/L	25 U	13 J	25 U	100 U	25 U	NA	20 U	20 UJ	20 U	NA	0.79 J	0.8 J	4.8 J [7 J]	25 U	25 U	100 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	80	51	3.2	8	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	2,000 JD [1,900 JD]	1,300 D	2,000 D	711	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Bromoform	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Bromomethane	ug/L	1 U	1 U	1 U	10 U	1 U	NA	2 U	2 U	2 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	10 U	NA
Carbon Disulfide	ug/L	5 U	5 U	5 UJ	30 U	5 U	NA	5 U	5 U	5 U	NA	5 U	5 U	5 UJ [5 UJ]	5 U	5 U	30 U	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Chloroethane	ug/L	31	26	1 U	61	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	52 J [60 J]	23	89	69 J	NA
Chloroform	ug/L	0.79 J	0.71 J	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Chloromethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
cis-1,2-Dichloroethene	ug/L	37	33	3	4 J	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	2.3 J [2.2 J]	1.8	2.5	5 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 UJ	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Cyclohexane	ug/L	5 U	5 U	5 U	5 U	5 U	NA	1 U	1 UJ	1 U	NA	5 U	5 U	5 UJ [5 UJ]	5 U	5 U	5 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 UJ	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NA	1 U	1 U	1 U	NA	5 U	5 U	5 UJ [5 UJ]	5 U	5 U	5 U	NA
m&p-Xylene	ug/L	2 U	2 U	2 U	5 U	2 U	NA	1 U	1 U	1 U	NA	2 U	2 U	2 UJ [2 UJ]	2 U	2 U	5 U	NA
Methyl acetate	ug/L	5 U	5 U	5 U	50 U	5 U	NA	10 U	10 U	10 U	NA	5 U	5 U	5 UJ [5 UJ]	5 U	5 UJ	50 U	NA
Methyl tert-butyl ether	ug/L	6.9	6.7	5 U	4 J	5 U	NA	5 U	5 U	5 U	NA	5 U	5 U	1 J [1 J]	1 J	5 U	30 U	NA
Methylcyclohexane	ug/L	1 U	1 U	1 UJ	100 U	1 U	NA	20 U	20 U	20 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	100 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	30 U	5 U	NA	5 U	5 U	5 U	NA	5 U	5 U	5 UJ [5 UJ]	5 UJ	5 U	30 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	4	3	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-100 09/27/01	36-100 06/13/02	36-100 03/25/03	36-100 06/10/05	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/18/12	36-120 09/27/01	36-121 09/27/01	36-FP1 09/27/01	36-FP1 06/14/02	36-FP1 03/27/03	36-FP1 06/09/05	36-FP1 10/27/11
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 UJ	1 U	5 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1	0.78 J	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
trans-1,2-Dichloroethene	ug/L	4.1	4.5	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	0.72 J [0.68 J]	1 U	1 U	5 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	3.1	3.6	3.7	8	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	35 JD [34 JD]	18	18	5 J	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	5 U	NA
Vinyl Chloride	ug/L	26	6.3 J	1 U	9	1 U	NA	1 U	1 U	1 U	NA	1 U	1 U	3.1 J [3 J]	1.3	8.1	5 U	NA
SVOC																		
1,1'-Biphenyl	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4 U	NA	NA	NA	4.1 U	NA	NA	NA	NA	NA	4.1 U	4.2 U	4 U [4.2 U]	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	10 U	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U	11 U	10 U [11 U]	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 UJ	21 U	20 UJ [21 U]	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2-Chlorophenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2-Methylphenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
2-Nitrophenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
3&4-Methylphenol	ug/L	10 UJ	NA	NA	NA	10 UJ	NA	NA	NA	NA	NA	10 UJ	11 UJ	10 UJ [11 UJ]	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
4-Nitroaniline	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
Acenaphthene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Acenaphthylene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Acetophenone	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Anthracene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Atrazine	ug/L	5 U	NA	NA	NA	5.1 UJ	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Benzaldehyde	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 UJ [5.3 U]	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	1 U	1.1 U	1 U [1.1 U]	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	2 U	2.1 U	2 U [2.1 U]	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	2 U	2.1 U	2 U [2.1 U]	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	1 U	1.1 U	1 U [1.1 U]	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	0.98 J	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Caprolactam	ug/L	10 U	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U	11 U	10 U [11 U]	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U	11 U	10 U [11 U]	NA	NA	NA	NA
Chrysene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	2 U	2.1 U	2 U [2.1 U]	NA	NA	NA	NA
Dibenzofuran	ug/L	4 U	NA	NA	NA	4.1 U	NA	NA	NA	NA	NA	4.1 U	4.2 U	4 U [4.2 U]	NA	NA	NA	NA
Diethylphthalate	ug/L	5 U	NA	NA	NA	1.47 J	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-100 09/27/01	36-100 06/13/02	36-100 03/25/03	36-100 06/10/05	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/18/12	36-120 09/27/01	36-121 09/27/01	36-FP1 09/27/01	36-FP1 06/14/02	36-FP1 03/27/03	36-FP1 06/09/05	36-FP1 10/27/11
Dimethylphthalate	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Fluoranthene	ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	2 U	2.1 U	2 U [2.1 U]	NA	NA	NA	NA
Fluorene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Hexachlorobenzene	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	1 U	1.1 U	1 U [1.1 U]	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Hexachloroethane	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	2 U	2.1 U	2 U [2.1 U]	NA	NA	NA	NA
Isophorone	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Methylphenols, Total	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Naphthalene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Nitrobenzene	ug/L	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	NA	2 U	2.1 U	2 U [2.1 U]	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	NA	20 U	21 U	20 U [21 U]	NA	NA	NA	NA
Phenanthrene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Phenol	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
Pyrene	ug/L	5 U	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	5.1 U	5.3 U	5 U [5.3 U]	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1221	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1232	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1242	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1248	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1254	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1260	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U [0.1 U]	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	1.2 U	1.2 U	1.2 U	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA	1.2 U [1.2 U]	1.2 U	1.2 U	NA	5 U [5 U]
Arsenic	ug/L	21	12	12	NA	1.4 J	1 U	2 U	NA	NA	NA	NA	NA	58 J [58 J]	33	54	NA	35 [35]
Barium	ug/L	840	250 J	210 J	NA	140 J	120 J	NA	NA	NA	NA	NA	NA	830 J [780]	560	510	NA	525 [523]
Beryllium	ug/L	0.54	0.4 UJ	0.4 U	NA	0.37 J	0.4 UJ	NA	NA	NA	NA	NA	NA	1 J [9]	0.4 UJ	0.4 U	NA	1 U [1 U]
Cadmium	ug/L	0.22	0.23	0.33	NA	0.11 J	0.072 J	NA	NA	NA	NA	NA	NA	0.14 J [0.44 J]	0.14 J	0.2 U	NA	0.5 U [0.5 U]
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	1	0.8	1.6	NA	0.82 J	0.7	NA	NA	NA	NA	NA	NA	1.1 [1.5]	0.43 J	1.4	NA	5 U [5 U]
Cobalt	ug/L	7.8	6	3.4	NA	2.1	1.3	NA	NA	NA	NA	NA	NA	6.1 [6.5]	3.5	3.6	NA	5 U [5 U]
Copper	ug/L	3.8	4.5	4.3	NA	2	4.8	NA	NA	NA	NA	NA	NA	9.6 [6.7]	3 U	4.4	NA	5 [5]
Cyanide (total)	ug/L	3.5 J	NA	5 U	NA	1.3 J	NA	NA	NA	NA	5 U	4.6 J	5 U	1.6 J [1.4 J]	NA	5 U	NA	5 U [5 U]
Lead	ug/L	0.34 J	0.33 J	0.93	NA	0.38 J	0.13 J	NA	NA	NA	NA	NA	NA	0.43 [0.44]	0.47	0.57	NA	4 [7]
Manganese	ug/L	1,600	1,800 J	630	NA	440 J	330 J	NA	NA	NA	NA	NA	NA	1,700 J [2,100]	1,300 J	840	NA	885 [1,070]
Mercury	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.126 J	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA	0.2 U [0.2 U]

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-100 09/27/01	36-100 06/13/02	36-100 03/25/03	36-100 06/10/05	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/18/12	36-120 09/27/01	36-121 09/27/01	36-FP1 09/27/01	36-FP1 06/14/02	36-FP1 03/27/03	36-FP1 06/09/05	36-FP1 10/27/11
Nickel	ug/L	82	55	33	NA	35	13	NA	NA	NA	NA	NA	NA	23 [25]	12	27	NA	44 [47]
Selenium	ug/L	1.4 U	0.47 J	1.6 U	NA	1.4 U	1.4 U	NA	NA	NA	NA	NA	NA	1.4 U [2 J]	1.4 U	1.9 J	NA	5 U [5 U]
Silver	ug/L	0.4 U	0.39 J	0.4 U	NA	0.4 U	0.4 UJ	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	0.4 U	0.4 U	NA	0.5 U [0.5 U]
Thallium	ug/L	0.3	0.15 J	0.082 J	NA	0.25 J	0.056 J	NA	NA	NA	NA	NA	NA	0.2 U [0.28 U]	0.2 U	0.089 J	NA	2 U [2 U]
Vanadium	ug/L	0.8 U	0.8 U	0.097 J	NA	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	0.8 U [0.8 U]	0.8 U	0.8 U	NA	4 U [4 U]
Zinc	ug/L	41	21 J	27 U	NA	30 J	13 J	NA	NA	NA	NA	NA	NA	30 J [32]	21	22	NA	5 U [5 U]
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	1.2 U	1.2 U	1.2 U [1.2 U]	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	17	NA	NA	NA	1.7	NA	2 U	NA	NA	NA	1 U	1 U	48 [48]	NA	NA	NA	NA
Barium (Dissolved)	ug/L	630	NA	NA	NA	130	NA	NA	NA	NA	NA	260	64	620 [630]	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	0.4 U	0.4 U [0.4 U]	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.67	0.2 U	0.2 U [0.2 U]	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	0.68 J	NA	NA	NA	0.6 U	NA	NA	NA	NA	NA	0.6 U	0.72	0.6 U [0.6 U]	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	6	NA	NA	NA	1.8	NA	NA	NA	NA	NA	1	2.4	4.4 [4.4]	NA	NA	NA	NA
Copper (Dissolved)	ug/L	1.5	NA	NA	NA	2.5	NA	NA	NA	NA	NA	2.6	0.81	2.9 [2.5]	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	3.3 J	NA	NA	NA	5 U	NA	NA	NA	NA	NA	2.7 J	5 U	1.1 J [1.7 J]	NA	NA	NA	NA
Lead (Dissolved)	ug/L	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	0.4 U	0.4 U [0.4 U]	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	1,500	NA	NA	NA	450 J	NA	NA	NA	NA	NA	130 J	770	1,500 J [1,500 J]	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	60	NA	NA	NA	30	NA	NA	NA	NA	NA	10	13	16 [16]	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	2.4 J	NA	NA	NA	2.5 J	NA	NA	NA	NA	NA	2.3 U	2.3 J	2.8 U [1.9 U]	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	0.4 UJ [0.4 UJ]	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	0.8 U	0.8 U	0.8 U [0.8 U]	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	26	NA	NA	NA	19 J	NA	NA	NA	NA	NA	19	6 U	42 [39]	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-FP1 06/05/13	36-FP2 09/28/01	36-FP2 06/14/02	36-FP2 03/25/03	36-FP5 09/28/01	36-FP5 12/16/02	36-FP5 04/02/03	36-FP8 09/27/01	36-FP8 06/17/02	36-FP8 03/25/03	37-01 09/26/01	37-01 12/18/02	38-101 10/11/12	38-120 09/27/01	38-120 10/10/12	40-1R 04/03/03	40-2 09/20/01	40-2 12/17/02
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,1,1-Trichloroethane	ug/L	3,700 Y	1 U	0.64 J	1 U	19	8.3	11	1.8	1	1 U	1 U	NA	1	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	6,000 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	600 Y	2.3	3.4	5.1	18	11	11	1.1	1 U	1 U	7.5	NA	3	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	200 UY	1 U	1 U	1 U	2.6	0.91 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	400 UY	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	5 U	1 U	1 U	1 UJ
1,2-Dibromoethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	200 UY	1 U	5.2	13	0.85 J	0.51 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	4,000 UY	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U	25 U	25 U	25 U	1 J	25 U
2-Hexanone	ug/L	10,000 UY	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
4-Methyl-2-pentanone	ug/L	2,000 UY	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	4,000 UY	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	0.78 J	NA	50 U	0.9 J	50 U	25 U	2.1 J	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA
Benzene	ug/L	200 UY	4,000 D	2,700 D	4,500 D	1.5	0.91 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	19	21
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Bromodichloromethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 UJ
Bromomethane	ug/L	400 UY	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	5 U	1 U	1 U	1 U
Carbon Disulfide	ug/L	1,000 UY	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	200 UY	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 UJ
Chlorobenzene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	200 UY	17	21	9.8	1 U	2.6	1.9	1 U	1 U	1 U	1 U	NA	5 U	1 U	5 U	1 U	1 U	1 U
Chloroform	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	5 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	200 UY	1 U	1 U	1 U	0.59 J	0.6 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	200 UY	5 U	5 U	5 U	5 U	5 U	5 U	4.8 J	5 U	5 U	5 U	NA	NA	5 U	NA	5 U	67	38
Dibromochloromethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	5 U	1 U	1 U	1 UJ
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
Dichlorodifluoromethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	5 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	NA
Ethylbenzene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	170 D	61
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Isopropylbenzene	ug/L	200 UY	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	46	74
m&p-Xylene	ug/L	400 UY	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U	2 U	2.7	1.6 J
Methyl acetate	ug/L	2,000 UY	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	NA	5 UJ	5 U	5 U
Methyl tert-butyl ether	ug/L	1,000 UY	0.79 J	0.74 J	5 U	3.1 J	4.2 J	6.1	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	4,000 UY	1 U	1 U	1 UJ	1 U	1 U	1 U	3	1 U	1 UJ	1 U	NA	NA	1 U	NA	1 U	15	12
Methylene Chloride	ug/L	1,000 UY	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	1,000 UY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
n-Propylbenzene	ug/L	200 UY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
o-Xylene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	0.52 J	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Styrene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-FP1 06/05/13	36-FP2 09/28/01	36-FP2 06/14/02	36-FP2 03/25/03	36-FP5 09/28/01	36-FP5 12/16/02	36-FP5 04/02/03	36-FP8 09/27/01	36-FP8 06/17/02	36-FP8 03/25/03	37-01 09/26/01	37-01 12/18/02	38-101 10/11/12	38-120 09/27/01	38-120 10/10/12	40-1R 04/03/03	40-2 09/20/01	40-2 12/17/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Tetrachloroethene	ug/L	200 UY	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	90 U	NA	NA	NA
Toluene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1.2	1.5
trans-1,2-Dichloroethene	ug/L	200 UY	0.61 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
Trichloroethene	ug/L	200 UY	1 U	1 U	1 U	1.2	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1.7	1 U	1 U
Trichlorofluoromethane	ug/L	200 UY	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	200 UY	1 U	1 U	1 U	2.5	1.2	1.4	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																			
1,1'-Biphenyl	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	NA	5.3 U	NA	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U	NA	NA	4.1 U	NA	NA	R	NA	NA	4.7 U	NA	4 U	4.2 U	4 U	NA	4 U	NA
2,4-Dichlorophenol	ug/L	NA	10 U	NA	NA	10 U	NA	NA	R	NA	NA	12 U	NA	10 U	11 U	10 U	NA	10 U	NA
2,4-Dimethylphenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2,4-Dinitrophenol	ug/L	NA	20 U	NA	NA	21 U	NA	NA	R	NA	NA	24 U	NA	25 U	21 U	25 U	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2-Chloronaphthalene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2-Chlorophenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	10 U	5.3 U	10 U	NA	5 U	NA
2-Methylnaphthalene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
2-Methylphenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	10 U	5.3 U	10 U	NA	5 U	NA
2-Nitroaniline	ug/L	NA	20 U	NA	NA	21 U	NA	NA	5 U	NA	NA	24 U	NA	25 U	21 U	25 U	NA	20 U	NA
2-Nitrophenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
3&4-Methylphenol	ug/L	NA	10 UJ	NA	NA	10 UJ	NA	NA	R	NA	NA	12 UJ	NA	20 U	11 UJ	20 U	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	NA	21 U	NA	NA	20 U	NA	NA	24 U	NA	5 U	21 U	5 U	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	NA	21 U	NA	NA	20 U	NA	NA	24 U	NA	25 U	21 U	25 U	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	NA	NA	21 U	NA	NA	R	NA	NA	24 UJ	NA	20 U	21 U	20 U	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
4-Chloroaniline	ug/L	NA	20 U	NA	NA	21 U	NA	NA	20 U	NA	NA	24 U	NA	10 U	21 U	10 U	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	R	NA
4-Nitroaniline	ug/L	NA	20 U	NA	NA	21 U	NA	NA	20 U	NA	NA	24 U	NA	25 U	21 U	25 U	NA	20 U	NA
4-Nitrophenol	ug/L	NA	20 U	NA	NA	21 U	NA	NA	R	NA	NA	24 U	NA	25 U	21 U	25 U	NA	20 U	NA
Acenaphthene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Acenaphthylene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Acetophenone	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	NA	5.3 U	NA	NA	5 U	NA
Anthracene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Atrazine	ug/L	NA	5 UJ	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	NA	5.3 U	NA	NA	5 U	NA
Benzaldehyde	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 UJ	NA	NA	5.9 U	NA	NA	5.3 U	NA	NA	5 U	NA
Benzo(a)anthracene	ug/L	NA	1 U	NA	NA	1 U	NA	NA	1 U	NA	NA	1.2 U	NA	1 U	1.1 U	1 U	NA	1 U	NA
Benzo(a)pyrene	ug/L	NA	2 U	NA	NA	2.1 U	NA	NA	2 U	NA	NA	2.4 U	NA	1 U	2.1 U	1 U	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	NA	2 U	NA	NA	2.1 U	NA	NA	2 U	NA	NA	2.4 U	NA	1 U	2.1 U	1 U	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	1 U	5.3 U	1 U	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	1 U	5.3 U	1 U	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U	NA	NA	1 U	NA	NA	1 U	NA	NA	1.2 U	NA	5 U	1.1 U	5 U	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	1.32 J	NA
Butylbenzylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Caprolactam	ug/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	12 U	NA	NA	11 U	NA	NA	10 U	NA
Carbazole	ug/L	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	12 U	NA	NA	11 U	NA	NA	10 U	NA
Chrysene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	1 U	5.3 U	1 U	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U	NA	NA	2.1 U	NA	NA	2 U	NA	NA	2.4 U	NA	2 U	2.1 U	2 U	NA	2 U	NA
Dibenzofuran	ug/L	NA	4 U	NA	NA	4.1 U	NA	NA	4 U	NA	NA	4.7 U	NA	4 U	4.2 U	4 U	NA	4 U	NA
Diethylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-FP1 06/05/13	36-FP2 09/28/01	36-FP2 06/14/02	36-FP2 03/25/03	36-FP5 09/28/01	36-FP5 12/16/02	36-FP5 04/02/03	36-FP8 09/27/01	36-FP8 06/17/02	36-FP8 03/25/03	37-01 09/26/01	37-01 12/18/02	38-101 10/11/12	38-120 09/27/01	38-120 10/10/12	40-1R 04/03/03	40-2 09/20/01	40-2 12/17/02
Dimethylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Di-n-Butylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	1.95 J	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Di-n-Octylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Fluoranthene	ug/L	NA	2 U	NA	NA	2.1 U	NA	NA	2 U	NA	NA	2.4 U	NA	1 U	2.1 U	1 U	NA	2 U	NA
Fluorene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Hexachlorobenzene	ug/L	NA	1 U	NA	NA	1 U	NA	NA	1 U	NA	NA	1.2 U	NA	5 U	1.1 U	5 U	NA	1 U	NA
Hexachlorobutadiene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	10 U	5.3 U	10 U	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Hexachloroethane	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U	NA	NA	2.1 U	NA	NA	2 U	NA	NA	2.4 U	NA	2 U	2.1 U	2 U	NA	2 U	NA
Isophorone	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Methylphenols, Total	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	NA	5.3 U	NA	NA	5 U	NA
Naphthalene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Nitrobenzene	ug/L	NA	2 U	NA	NA	2.1 U	NA	NA	2 U	NA	NA	2.4 U	NA	5 U	2.1 U	5 U	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Pentachlorophenol	ug/L	NA	20 U	NA	NA	21 U	NA	NA	R	NA	NA	24 U	NA	5 U	21 U	5 U	NA	20 U	NA
Phenanthrene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	2 U	5.3 U	2 U	NA	5 U	NA
Phenol	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	R	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
Pyrene	ug/L	NA	5 U	NA	NA	5.1 U	NA	NA	5 U	NA	NA	5.9 U	NA	5 U	5.3 U	5 U	NA	5 U	NA
PCB																			
Aroclor-1016	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1221	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1232	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1242	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1248	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1254	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1260	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	0.1 U	0.1 U	0.1 U	NA	0.11 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.13 U	NA	NA	0.1 U	NA	NA	0.1 U	NA
Inorganic																			
Antimony	ug/L	NA	1.2 U	1.2 U	1.2 U	NA	NA	NA	1.2 U	1.2 U	0.59 J	NA	1.2 U	NA	1.4 J	NA	0.9 J	NA	NA
Arsenic	ug/L	16	170 J	120	94	NA	NA	NA	14 J	2.3	1 U	NA	14	2 U	1.4 J	2 U	1 U	NA	NA
Barium	ug/L	NA	670 J	470	400 J	NA	NA	NA	250 J	80	510 J	NA	40 J	46	180 J	93	53	NA	NA
Beryllium	ug/L	NA	0.64 J	0.4 UJ	0.4 U	NA	NA	NA	2.3 J	0.4 UJ	0.4 U	NA	0.4 UJ	1 U	3.2 J	1 U	0.4 U	NA	NA
Cadmium	ug/L	NA	0.17 J	0.2 U	0.2 U	NA	NA	NA	1.2 J	0.079 J	2.5	NA	0.2 UJ	0.5	0.28 J	0.5 U	0.09 J	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	1.1	0.72	0.47 J	NA	NA	NA	1.2	0.29 J	3.8	NA	0.89	5 U	1.7	5 U	6.4	NA	NA
Cobalt	ug/L	NA	0.98	1	0.58	NA	NA	NA	4.2	2	3.3	NA	7.3 J	5 U	4.3	5 U	0.48	NA	NA
Copper	ug/L	NA	2.3	8.3	2.6	NA	NA	NA	5	6.8	7	NA	2.5	NA	2.8	NA	5.4	NA	NA
Cyanide (total)	ug/L	NA	1.5 J	NA	5 U	5 U	NA	NA	30	160	68	5 U	5 U	5 U	5 U	5 U	6.8	2.3 J	NA
Lead	ug/L	3 U	0.35 J	0.27 J	0.26 J	NA	NA	NA	0.51	0.14 J	0.2 J	NA	0.59 J	NA	0.56	NA	1.3	NA	NA
Manganese	ug/L	292	150 J	140 J	110	NA	NA	NA	1,300 J	290 J	1,200	NA	2,100	500	570 J	671	57 J	NA	NA
Mercury	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	36-FP1 06/05/13	36-FP2 09/28/01	36-FP2 06/14/02	36-FP2 03/25/03	36-FP5 09/28/01	36-FP5 12/16/02	36-FP5 04/02/03	36-FP8 09/27/01	36-FP8 06/17/02	36-FP8 03/25/03	37-01 09/26/01	37-01 12/18/02	38-101 10/11/12	38-120 09/27/01	38-120 10/10/12	40-1R 04/03/03	40-2 09/20/01	40-2 12/17/02
Nickel	ug/L	NA	17	8.4	8.6	NA	NA	NA	15	2.5	14	NA	10 J	12	25	7	8.3	NA	NA
Selenium	ug/L	NA	1.4 U	1.4 U	1.6 U	NA	NA	NA	1.4 U	1.4 U	1.6 U	NA	1.6 U	5 U	1.4 U	5 U	1.6 U	NA	NA
Silver	ug/L	NA	0.4 U	0.4 U	0.4 U	NA	NA	NA	0.4 U	0.4 U	0.13 J	NA	0.4 UJ	0.2 U	0.5 J	0.2 U	0.4 UJ	NA	NA
Thallium	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U	0.095 J	NA	0.22 J	2 U	1.9 J	2 U	0.12 J	NA	NA
Vanadium	ug/L	NA	0.8 U	0.8 U	0.8 U	NA	NA	NA	0.8 U	0.8 U	0.8 U	NA	0.23 J	NA	0.8 U	NA	0.24 J	NA	NA
Zinc	ug/L	NA	30 J	24	19 U	NA	NA	NA	91 J	11	18 U	NA	17 J	27	14 J	5 U	11	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	1.2 U	1.2 U	NA	1.2 U	NA	NA	1.2 U	NA	NA	1.2 U	NA	NA	1.2 U	NA	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	NA	120	120	NA	37 U	NA	NA	11	NA	NA	12	NA	NA	1 U	NA	NA	6.1	NA
Barium (Dissolved)	ug/L	NA	440	470	NA	310	NA	NA	180	NA	NA	58	NA	NA	130	NA	NA	190 J	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	0.4 UJ	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.78	NA	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	0.6 U	0.97	NA	0.6 U	NA	NA	0.6 U	NA	NA	0.6 U	NA	NA	0.6 U	NA	NA	0.9	NA
Cobalt (Dissolved)	ug/L	NA	0.52	0.88	NA	0.22	NA	NA	2.8	NA	NA	2	NA	NA	3.1	NA	NA	0.74	NA
Copper (Dissolved)	ug/L	NA	0.7	4.3	NA	0.6 U	NA	NA	1.6	NA	NA	0.65	NA	NA	0.85	NA	NA	2.5	NA
Cyanide (dissolved)	ug/L	NA	1.6 J	NA	NA	5 U	NA	NA	28	NA	NA	5 U	NA	NA	5 U	NA	NA	4 J	NA
Lead (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	110 J	150	NA	78	NA	NA	1,100 J	NA	NA	1,000 J	NA	NA	410	NA	NA	210	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	9.6	7.7	NA	6.4	NA	NA	9	NA	NA	7.1	NA	NA	24	NA	NA	8.9	NA
Selenium (Dissolved)	ug/L	NA	1.4 U	1.4 U	NA	2.9	NA	NA	5.8 J	NA	NA	3.1 J	NA	NA	1.4 U	NA	NA	4.7	NA
Silver (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 UJ	NA	NA	0.4 UJ	NA	NA	0.4 U	NA	NA	1.6 J	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U	NA	NA	0.89	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	0.8 U	NA	0.8 U	NA	NA	0.8 U	NA	NA	0.8 U	NA	NA	0.8 U	NA	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	NA	22 J	28	NA	15	NA	NA	11	NA	NA	13	NA	NA	11	NA	NA	7	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	40-2 03/24/03	40-3 09/18/01	40-3 12/17/02	40-3 03/24/03	40-4R 11/21/01	40-4R 06/24/02	40-4R 03/24/03	40-5 09/18/01	40-6 09/18/01	40-6R 04/23/03	40-6R 10/05/04	40-301 09/17/01	40-302 09/17/01	40-303R 12/07/01	40-303R 06/24/02	40-303R 03/27/03	40-303R 10/05/04	40-303R 10/31/07
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	30 U	1 U	1 U	1 U	1 U	1 U	30 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 UJ	1.4	0.51 J	1 U	1.2	0.75 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	5 U	5 U	5 U	2 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	6.6 J	1 J	25 U	25 U	10 J	25 U	25 U	25 U	25 U	30 U	25 U	25 U	25 U	25 UJ	25 U	30 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	0.63 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U	1 U	50 U	50 U	50 U	50 U	50 U	1 U	NA
Acetone	ug/L	25 U	12 J	25 U	25 U	25 U	27 J	25 U	25 U	25 U	1.9 J	30 U	25 U	25 U	7.6 J	25 U	25 U	30 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	18	160 D	41	50	1,900 D	2,600 D	1,500 D	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromoform	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	NA
Bromomethane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 UJ	1 U	1 U	1 U	1 U	1 U	2 UJ	NA
Carbon Disulfide	ug/L	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1.4	0.99 J	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloromethane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	0.75 J	0.69 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Cyclohexane	ug/L	28	120 D	22	68	250 D	77	96	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	1 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	92 D	72	12	31	800 D	680 D	410 D	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	25	35	12	23	71	36	37	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	1 U	NA
m&p-Xylene	ug/L	6	7.8	2.2	5.8	2,200 D	1,800 D	1,000 D	2 U	2 U	2 U	1 U	0.59 J	2 U	2 U	2 U	2 U	1 U	NA
Methyl acetate	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 UJ	10 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	1.2 J	1.4 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Methylcyclohexane	ug/L	6.5 J	59	9.4	32 J	180 D	64	74 J	1 U	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	20 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	2.5	0.59 J	1.8	230 D	84	9.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	40-2 03/24/03	40-3 09/18/01	40-3 12/17/02	40-3 03/24/03	40-4R 11/21/01	40-4R 06/24/02	40-4R 03/24/03	40-5 09/18/01	40-6 09/18/01	40-6R 04/23/03	40-6R 10/05/04	40-301 09/17/01	40-302 09/17/01	40-303R 12/07/01	40-303R 06/24/02	40-303R 03/27/03	40-303R 10/05/04	40-303R 10/31/07
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1.4	8.8	2.7	5.3	68	58	33	1 U	1 U	1 U	1 U	0.65 J	1 U	1 U	1 U	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	0.99 J	1 U	1 U	0.73 J	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	0.57 J	1 U	1 U	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
SVOC																			
1,1'-Biphenyl	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	4.2 U	NA	NA	4.4 U	NA	NA	4.7 U	4.2 U	NA	NA	4.2 U	4.2 U	4.1 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	11 U	NA	NA	11 U	NA	NA	12 U	11 U	NA	NA	11 U	11 U	10 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	5.3 U	NA	NA	23.4	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 UJ	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	11.4	NA	NA	53.2	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	11 UJ	NA	NA	11 UJ	NA	NA	12 UJ	11 UJ	NA	NA	11 UJ	11 UJ	10 UJ	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	R	NA	NA	5.6 U	NA	NA	R	R	NA	NA	R	R	5.1 U	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Acetophenone	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Anthracene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Atrazine	ug/L	NA	5.3 U	NA	NA	5.6 UJ	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.2 U	1.1 U	NA	NA	1.1 U	1.1 U	1 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.4 U	2.1 U	NA	NA	2.1 U	2.1 U	2 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.4 U	2.1 U	NA	NA	2.1 U	2.1 U	2 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.2 U	1.1 U	NA	NA	1.1 U	1.1 U	1 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Caprolactam	ug/L	NA	11 U	NA	NA	11 U	NA	NA	12 U	11 U	NA	NA	11 UJ	11 U	10 U	NA	NA	NA	NA
Carbazole	ug/L	NA	11 U	NA	NA	11 U	NA	NA	12 U	11 U	NA	NA	11 U	11 U	10 U	NA	NA	NA	NA
Chrysene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.4 U	2.1 U	NA	NA	2.1 U	2.1 U	2 U	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	4.2 U	NA	NA	4.4 U	NA	NA	4.7 U	4.2 U	NA	NA	4.2 U	4.2 U	4.1 U	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	40-2 03/24/03	40-3 09/18/01	40-3 12/17/02	40-3 03/24/03	40-4R 11/21/01	40-4R 06/24/02	40-4R 03/24/03	40-5 09/18/01	40-6 09/18/01	40-6R 04/23/03	40-6R 10/05/04	40-301 09/17/01	40-302 09/17/01	40-303R 12/07/01	40-303R 06/24/02	40-303R 03/27/03	40-303R 10/05/04	40-303R 10/31/07
Dimethylphthalate	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Fluoranthene	ug/L	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.4 U	2.1 U	NA	NA	2.1 U	2.1 U	2 U	NA	NA	NA	NA
Fluorene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.2 U	1.1 U	NA	NA	1.1 U	1.1 U	1 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.4 U	2.1 U	NA	NA	2.1 U	2.1 U	2 U	NA	NA	NA	NA
Isophorone	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Naphthalene	ug/L	NA	42.6	NA	NA	89.4	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.4 U	2.1 U	NA	NA	2.1 U	2.1 U	2 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	21 U	NA	NA	22 U	NA	NA	24 U	21 U	NA	NA	21 U	21 U	20 U	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Phenol	ug/L	NA	5.3 U	NA	NA	24.6	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
Pyrene	ug/L	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.9 U	5.3 U	NA	NA	5.3 U	5.3 U	5.1 U	NA	NA	NA	NA
PCB																			
Aroclor-1016	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1221	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1232	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1242	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1248	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.18	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1254	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1260	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.18	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	0.1 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	NA	NA	NA
Inorganic																			
Antimony	ug/L	NA	NA	1.2 U	NA	1.2 UJ	0.45 J	1.2 U	NA	NA	2.8	NA	NA	NA	1.2 U	1 J	0.34 J	NA	NA
Arsenic	ug/L	NA	NA	440	NA	200	150	160	NA	NA	1 U	2 U	NA	NA	18	41	37	NA	NA
Barium	ug/L	NA	NA	110 J	NA	210 J	180	180 J	NA	NA	35	NA	NA	NA	260	220	150	NA	NA
Beryllium	ug/L	NA	NA	0.93 J	NA	0.4 UJ	0.4 U	0.4 U	NA	NA	0.4 U	NA	NA	NA	0.13 J	0.4 U	0.4 U	1 U	NA
Cadmium	ug/L	NA	NA	0.2 UJ	NA	0.2 UJ	0.062 J	0.05 J	NA	NA	0.078 J	NA	NA	NA	0.16 J	0.42	0.067 J	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	3.8	NA	1.3 U	2.7	2.6	NA	NA	3.2	NA	NA	NA	5	9.3	2	NA	NA
Cobalt	ug/L	NA	NA	0.7 J	NA	1.5 U	3.3	2.6	NA	NA	0.48	NA	NA	NA	3	1.8	1.3	NA	NA
Copper	ug/L	NA	NA	3 J	NA	3.8 U	9.2	3.8	NA	NA	3.4	NA	NA	NA	6.3	3.9	2.8	NA	NA
Cyanide (total)	ug/L	NA	9.4	10	NA	5 U	5 U	5 U	1 J	430	24	24	13	1.1 J	5.9	5 U	5 J	NA	NA
Lead	ug/L	NA	NA	0.71 J	NA	2.9 U	6.4	4.9	NA	NA	2	3 U	NA	NA	6.6	2.7	1.6	3 U	NA
Manganese	ug/L	NA	NA	430 J	NA	620 J	1,000 J	510	NA	NA	270	NA	NA	NA	130	180 J	150	NA	NA
Mercury	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.145 J	0.2 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	40-2 03/24/03	40-3 09/18/01	40-3 12/17/02	40-3 03/24/03	40-4R 11/21/01	40-4R 06/24/02	40-4R 03/24/03	40-5 09/18/01	40-6 09/18/01	40-6R 04/23/03	40-6R 10/05/04	40-301 09/17/01	40-302 09/17/01	40-303R 12/07/01	40-303R 06/24/02	40-303R 03/27/03	40-303R 10/05/04	40-303R 10/31/07
Nickel	ug/L	NA	NA	7.7 J	NA	5.6 U	7.3	7.2	NA	NA	4.8	NA	NA	NA	7.8	7.3	13	NA	NA
Selenium	ug/L	NA	NA	1.6 U	NA	1.8 U	1.4 U	1.6 U	NA	NA	1.6 U	NA	NA	NA	2.2 J	1.4 U	1.6 U	NA	NA
Silver	ug/L	NA	NA	0.4 UJ	NA	0.4 UJ	0.4 UJ	0.4 U	NA	NA	0.4 UJ	NA	NA	NA	0.68	0.4 UJ	0.4 U	NA	NA
Thallium	ug/L	NA	NA	0.2 UJ	NA	0.2 UJ	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	0.057 J	0.2 U	0.81	NA	NA
Vanadium	ug/L	NA	NA	0.8 U	NA	2.1 U	4	3.7	NA	NA	0.29 J	NA	NA	NA	7.1	3.6	0.42 J	NA	NA
Zinc	ug/L	NA	NA	18 J	NA	26 U	22	19 U	NA	NA	8.6	NA	NA	NA	43	22	17	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	6 U	3.3	NA	2.9	1.2 U	NA	NA	1.6	1.2 U	1.2 U	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	410	NA	NA	170	140	NA	1 U	1 U	NA	NA	1.3	3.2	14	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	390	NA	NA	160	140	NA	260	26	NA	NA	470	66	210	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	NA	2 U	0.4 U	NA	0.4 U	0.4 U	NA	NA	0.4 U	0.4 U	3 J	NA	NA	1 U	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	NA	1 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.71	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	0.6 U	NA	NA	4.7 U	1.8	NA	9.7	0.6 U	NA	NA	1.3	0.6 U	1.4	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	0.23	NA	NA	1.2 U	2.3	NA	0.97	2.3	NA	NA	0.32	0.2 U	0.92	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	3.3	NA	NA	6.8 U	3.1	NA	11	5.1	NA	NA	6.5	27	0.6 U	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	11	NA	NA	5 U	5 U	NA	1.4 J	440 J	NA	NA	14	1.8 J	5.5	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	2 U	2.4	NA	0.4 U	0.4 U	NA	NA	0.4 U	0.4 U	0.4 U	NA	NA	3 U	NA
Manganese (Dissolved)	ug/L	NA	380	NA	NA	460 J	900 J	NA	53	860	NA	NA	420	130	38	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	4.5	NA	NA	4.2 U	4	NA	37	7.4	NA	NA	3.5	1.8	0.4 U	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	3.7 J	NA	NA	7 U	1.4 U	NA	1.9 J	1.4	NA	NA	1.4 U	1.4 U	1.4 U	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 U	NA	NA	2 U	0.99 J	NA	0.4 U	0.4 UJ	NA	NA	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	NA	1 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.23	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	4 U	1.4	NA	0.8 U	0.8 U	NA	NA	0.8 U	0.8 U	0.8 U	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	20	NA	NA	30 U	14	NA	14	20	NA	NA	20	7.1	24	NA	NA	NA	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	40-303R 09/11/08	40-304 09/14/01	40-304 12/17/02	40-304 03/21/03	40-304 10/06/04	40-304 10/31/07	40-304 09/11/08	40-304 10/18/10	40-304 10/25/11	40-304 11/09/12	40-304 06/06/13	40-305 09/17/01	40-305 06/24/02	40-305 03/21/03	40-305 03/25/03	40-305 06/06/13
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U	1 U	1 U	30 U	NA	NA	NA	30 U [30 U]	30 U	30 U [30 U]	1 U	1 U	1 U	NA	NA
1,1,2-Trichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1-Dichloroethane	ug/L	NA	1.4	1.1	1 U	1 J	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	0.65 J	1 U	1 U	NA	NA
1,1-Dichloroethene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5 U	5 U	5 U	2 U	NA	NA	5 U	2 U [2 U]	2 U	2 U [2 U]	5 U	5 U	5 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1 U	1 UJ	1 U	1 U	NA	NA	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dibromoethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichloropropane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	2 J	4.6 J	25 U	30 U	NA	NA	30 U	20 U [20 U]	20 U	20 U [20 U]	25 U	1 J	25 U	NA	NA
2-Hexanone	ug/L	NA	50 U	50 U	50 U	50 UJ	NA	NA	50 U	50 U [50 U]	50 U	50 U [50 U]	50 U	50 U	50 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	50 U	1 U	NA	NA	50 U	10 U [10 U]	10 U	10 U [10 U]	50 U	50 U	50 U	NA	NA
Acetone	ug/L	NA	25 U	25 U	25 U	7 J	NA	NA	50 U	20 U [20 U]	20 U	20 U [20 U]	25 U	25 U	25 U	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1 U	1 U	1 U	0.3 J	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	0.56 J	1 U	1 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromoform	ug/L	NA	1 U	1 UJ	1 U	1 UJ	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Bromomethane	ug/L	NA	1 U	1 U	1 UJ	2 UJ	NA	NA	5 U	2 U [2 U]	2 U	2 U [2 U]	1 U	1 U	1 UJ	NA	NA
Carbon Disulfide	ug/L	NA	5 U	5 U	5 UJ	5 U	NA	NA	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 UJ	NA	NA
Carbon Tetrachloride	ug/L	NA	1 U	1 UJ	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloroethane	ug/L	NA	1 U	1 U	1 U	1 UJ	NA	NA	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloroform	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloromethane	ug/L	NA	1 U	1 U	1 UJ	1 U	NA	NA	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 UJ	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	12	4.9	8.3	7	NA	NA	7	7 [9]	6	6 [6]	36	19	8.4	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Cyclohexane	ug/L	NA	5 U	5 U	5 U	1 U	NA	NA	NA	1 U [1 U]	1 U	1 U [1 U]	5 U	5 U	5 U	NA	NA
Dibromochloromethane	ug/L	NA	1 U	1 UJ	1 U	1 U	NA	NA	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5 U	5 U	5 U	1 U	NA	NA	5 U	1 U [1 U]	1 U	1 U [1 U]	5 U	5 U	5 U	NA	NA
m&p-Xylene	ug/L	NA	2 U	2 U	2 U	1 U	NA	NA	2 U	2 U [2 U]	2 U	2 U [2 U]	0.95 J	2 U	2 U	NA	NA
Methyl acetate	ug/L	NA	5 U	5 U	5 UJ	10 U	NA	NA	NA	10 U [10 U]	10 U	10 U [10 U]	5 U	5 U	5 UJ	NA	NA
Methyl tert-butyl ether	ug/L	NA	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Methylcyclohexane	ug/L	NA	1 U	1 U	1 U	20 U	NA	NA	NA	20 U [20 U]	20 U	20 U [20 U]	1 U	1 U	1 U	NA	NA
Methylene Chloride	ug/L	NA	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	40-303R 09/11/08	40-304 09/14/01	40-304 12/17/02	40-304 03/21/03	40-304 10/06/04	40-304 10/31/07	40-304 09/11/08	40-304 10/18/10	40-304 10/25/11	40-304 11/09/12	40-304 06/06/13	40-305 09/17/01	40-305 06/24/02	40-305 03/21/03	40-305 03/25/03	40-305 06/06/13
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1.3	1 U	1 U	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	2.1	0.94 J	1.1	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1 U	1 U	1 U	0.2 J	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	4.1	2.1	1 U	NA	NA
Trichlorofluoromethane	ug/L	NA	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA
Vinyl Chloride	ug/L	NA	4.9	5.3	1.7	5	NA	NA	4	3 [5]	7	3 [3]	5.8	3.7	3.9	NA	NA
SVOC																	
1,1'-Biphenyl	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 UJ	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Acetophenone	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Anthracene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Atrazine	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Caprolactam	ug/L	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 UJ	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA
Chrysene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2 U	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA

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Dimethylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Fluoranthene	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
Fluorene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
Isophorone	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Naphthalene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Phenol	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
Pyrene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	0.1 U	0.11 U	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.11 U	NA	NA	NA	NA
Aroclor-1221	ug/L	0.1 U	0.11 U	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.11 U	NA	NA	NA	NA
Aroclor-1232	ug/L	0.1 U	0.11 U	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.11 U	NA	NA	NA	NA
Aroclor-1242	ug/L	0.1 U	0.11 U	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.11 U	NA	NA	NA	NA
Aroclor-1248	ug/L	0.1 U	0.15 U	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.04 J	NA	NA	NA	NA
Aroclor-1254	ug/L	0.1 U	0.15	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.11 U	NA	NA	NA	NA
Aroclor-1260	ug/L	0.1 U	0.11 U	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.1 U]	0.11 U	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	0.15	NA	NA	NA	0.1 U	0.1 U [0.1 U]	0.1 U [0.1 U] [0.1 U]	0.1 U [0.1 U] [0.1 U]	0.1 U	0.1 U [0.1 U]	0.04 J	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.28 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.28 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 J	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.1	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76 J	NA
Beryllium	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.89	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	NA	NA	11	9
Lead	ug/L	NA	NA	NA	NA	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.2	3 U
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	150	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	NA

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Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71 J	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 U	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	2	NA	NA
Arsenic (Dissolved)	ug/L	NA	9.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.3	NA	11	NA	NA
Barium (Dissolved)	ug/L	NA	74	NA	NA	NA	NA	NA	NA	NA	NA	NA	73	NA	34	NA	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.14 J	NA	NA
Chromium Total (Dissolved)	ug/L	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6 U	NA	5	NA	NA
Cobalt (Dissolved)	ug/L	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	NA	0.59	NA	NA
Copper (Dissolved)	ug/L	NA	1.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	2.2	NA	NA
Cyanide (dissolved)	ug/L	NA	4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	24	NA	10	NA	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.66	NA	NA
Manganese (Dissolved)	ug/L	NA	440	NA	NA	NA	NA	NA	NA	NA	NA	NA	210	NA	86	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	NA	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.5	NA	1.1	NA	NA
Selenium (Dissolved)	ug/L	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA	1.6 U	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.094 J	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.057 J	NA	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	2.1	NA	NA
Zinc (Dissolved)	ug/L	NA	8.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	10	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	1.02	NA	NA	NA	NA	NA	0.283	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	44.8	NA	NA	NA	NA	NA	158.7 -	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	7.04	NA	NA	NA	NA	NA	7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	72	NA	NA	NA	NA	NA	55	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	17.23	NA	NA	NA	NA	NA	19.84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	4.01	NA	NA	NA	NA	NA	1.64	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	490	NA	NA	NA	NA	NA	390	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-100 09/25/01	43-101R 11/15/01	43-101R 06/18/02	43-103 09/25/01	43-140 09/26/01	43-140 06/12/02	43-140 04/03/03	43-140 10/12/04	43-140 11/02/07	43-140 09/16/08	43-141 09/25/01	43-166 09/26/01	43-166 06/19/02	43-166 09/23/09	43-167 09/26/01	43-167 09/23/09	43-168 09/27/01	43-168 12/17/02
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	9.8	11	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	30 U	200 U	30 U [30 U]	1 U	1 U	1 U	30 U	1 U	30 U	1 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 U	2.8	2.9	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	0.3	0.76 J	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	10 U	2 U [2 U]	5 U	5 U	5 U	2 U	5 U	2 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	0.2	1 U	0.2	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	30 U	100 U	20 U [20 U]	25 U	25 U	25 U	20 U	25 U	20 U	25 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	300 U	50 UJ [50 UJ]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	1 U	50 U	10 U [10 U]	50 U	50 U	50 U	10 U	50 U	10 U	50 U	NA
Acetone	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	30 U	100 U	20 U [20 U]	25 U	25 U	3.9 J	2	25 U	3	25 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromomethane	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	2 UJ	10 U	2 UJ [2 UJ]	1 U	1 UJ	1 U	2 U	1 UJ	2 U	1 U	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	30 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloroethane	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	5 U	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	0.76 J	3.3	4	2 J	0.7 J [0.6 J]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Cyclohexane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U [1 U]	5 U	5 U	5 U	1 U	5 U	1 U	5 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U [1 U]	5 U	5 U	5 U	1 U	5 U	1 U	5 U	NA
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	5 U	1 U [1 U]	2 U	2 U	2 U	1 U	2 U	1 U	2 U	NA
Methyl acetate	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	50 U	10 U [10 U]	5 U	5 U	5 U	10 U	5 U	10 U	5 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA
Methylcyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20 U	100 U	20 U [20 U]	1 U	1 U	1 U	20 U	1 U	20 U	1 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 J	30 U	5 U [5 U]	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-100 09/25/01	43-101R 11/15/01	43-101R 06/18/02	43-103 09/25/01	43-140 09/26/01	43-140 06/12/02	43-140 04/03/03	43-140 10/12/04	43-140 11/02/07	43-140 09/16/08	43-141 09/25/01	43-166 09/26/01	43-166 06/19/02	43-166 09/23/09	43-167 09/26/01	43-167 09/23/09	43-168 09/27/01	43-168 12/17/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	0.55 J	1 U	1 UJ	1 U	1 U	1 U	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	0.2	1 U	0.2	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	25	58	220 D	250	205	93 [89]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1.1	NA
SVOC																			
1,1'-Biphenyl	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2,4,5-Trichlorophenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2,4,6-Trichlorophenol	ug/L	4 U	4 U	NA	4 U	4.1 U	NA	NA	NA	NA	NA	4.2 U	4 U	NA	NA	4 U	NA	4.2 U	NA
2,4-Dichlorophenol	ug/L	10 U	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA	11 U	10 U	NA	NA	10 U	NA	11 U	NA
2,4-Dimethylphenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2,4-Dinitrophenol	ug/L	20 UJ	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
2,4-Dinitrotoluene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2,6-Dinitrotoluene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2-Chloronaphthalene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2-Chlorophenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2-Methylnaphthalene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2-Methylphenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
2-Nitroaniline	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
2-Nitrophenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
3&4-Methylphenol	ug/L	10 UJ	10 UJ	NA	10 UJ	10 UJ	NA	NA	NA	NA	NA	11 UJ	10 UJ	NA	NA	10 UJ	NA	11 UJ	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 UJ	20 U	NA	20 U	21 UJ	NA	NA	NA	NA	NA	21 U	20 UJ	NA	NA	20 UJ	NA	21 U	NA
4-Bromophenyl-phenylether	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
4-Chloro-3-Methylphenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
4-Chloroaniline	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
4-Chlorophenyl-phenylether	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
4-Nitroaniline	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 UJ	NA
4-Nitrophenol	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
Acenaphthene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Acenaphthylene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Acetophenone	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Anthracene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Atrazine	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Benzaldehyde	ug/L	5 UJ	5 UJ	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Benzo(a)anthracene	ug/L	1 U	1 U	NA	1 U	1 U	NA	NA	NA	NA	NA	1.1 U	1 U	NA	NA	1 U	NA	1.1 U	NA
Benzo(a)pyrene	ug/L	2 U	2 U	NA	2 U	2.1 U	NA	NA	NA	NA	NA	2.1 U	2 U	NA	NA	2 U	NA	2.1 U	NA
Benzo(b)fluoranthene	ug/L	2 U	2 U	NA	2 U	2.1 U	NA	NA	NA	NA	NA	2.1 U	2 U	NA	NA	2 U	NA	2.1 U	NA
Benzo(g,h,i)perylene	ug/L	5 U	5 UJ	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Benzo(k)fluoranthene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
bis(2-Chloroethyl)ether	ug/L	1 U	1 U	NA	1 U	1 U	NA	NA	NA	NA	NA	1.1 U	1 U	NA	NA	1 U	NA	1.1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Butylbenzylphthalate	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Caprolactam	ug/L	10 U	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA	11 U	10 U	NA	NA	10 U	NA	11 U	NA
Carbazole	ug/L	10 U	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA	11 U	10 U	NA	NA	10 U	NA	11 UJ	NA
Chrysene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Dibenzo(a,h)anthracene	ug/L	2 U	2 U	NA	2 U	2.1 U	NA	NA	NA	NA	NA	2.1 U	2 U	NA	NA	2 U	NA	2.1 U	NA
Dibenzofuran	ug/L	4 U	4 U	NA	4 U	4.1 U	NA	NA	NA	NA	NA	4.2 U	4 U	NA	NA	4 U	NA	4.2 U	NA
Diethylphthalate	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	1.23 J	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-100 09/25/01	43-101R 11/15/01	43-101R 06/18/02	43-103 09/25/01	43-140 09/26/01	43-140 06/12/02	43-140 04/03/03	43-140 10/12/04	43-140 11/02/07	43-140 09/16/08	43-141 09/25/01	43-166 09/26/01	43-166 06/19/02	43-166 09/23/09	43-167 09/26/01	43-167 09/23/09	43-168 09/27/01	43-168 12/17/02
Dimethylphthalate	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Di-n-Butylphthalate	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Di-n-Octylphthalate	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Fluoranthene	ug/L	2 U	2 U	NA	2 U	2.1 U	NA	NA	NA	NA	NA	2.1 U	2 U	NA	NA	2 U	NA	2.1 U	NA
Fluorene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Hexachlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	NA	NA	NA	NA	NA	1.1 U	1 U	NA	NA	1 U	NA	1.1 U	NA
Hexachlorobutadiene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Hexachlorocyclopentadiene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Hexachloroethane	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	2 U	2 U	NA	2 U	2.1 U	NA	NA	NA	NA	NA	2.1 U	2 U	NA	NA	2 U	NA	2.1 U	NA
Isophorone	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Methylphenols, Total	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Naphthalene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Nitrobenzene	ug/L	2 U	2 U	NA	2 U	2.1 U	NA	NA	NA	NA	NA	2.1 U	2 U	NA	NA	2 U	NA	2.1 U	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
N-Nitrosodiphenylamine	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Pentachlorophenol	ug/L	20 U	20 U	NA	20 U	21 U	NA	NA	NA	NA	NA	21 U	20 U	NA	NA	20 U	NA	21 U	NA
Phenanthrene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Phenol	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
Pyrene	ug/L	5 U	5 U	NA	5 U	5.1 U	NA	NA	NA	NA	NA	5.3 U	5 U	NA	NA	5 U	NA	5.3 U	NA
PCB																			
Aroclor-1016	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1221	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1232	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1242	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1248	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1254	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1260	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	0.11 U	NA	0.11 U	0.1 U	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	0.1 U	0.1 U	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	0.11 U	0.1 U	NA	NA	0.1 U	NA	0.1 U	NA
Inorganic																			
Antimony	ug/L	NA	1.2 UJ	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	1.2 U
Arsenic	ug/L	NA	67	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	29	NA	NA	NA	NA	4.4
Barium	ug/L	NA	91 J	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	930	NA	NA	NA	NA	170 J
Beryllium	ug/L	NA	0.4 UJ	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	0.24 J
Cadmium	ug/L	NA	0.2 UJ	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.14 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	0.6 U	0.53 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	NA	NA	NA	NA	1.2
Cobalt	ug/L	NA	2.8	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2	NA	NA	NA	NA	2.6 J
Copper	ug/L	NA	0.96 U	2.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.6 J	NA	NA	NA	NA	6.6 J
Cyanide (total)	ug/L	5 U	5 U	5 U	7.4	25	NA	NA	NA	NA	NA	1.7 J	1.2 J	5 U	NA	2 J	NA	1.6 J	5 U
Lead	ug/L	NA	0.56	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.3 J	NA	NA	NA	NA	0.74 J
Manganese	ug/L	NA	690 J	530	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,200	NA	NA	NA	NA	1,800 J
Mercury	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-100 09/25/01	43-101R 11/15/01	43-101R 06/18/02	43-103 09/25/01	43-140 09/26/01	43-140 06/12/02	43-140 04/03/03	43-140 10/12/04	43-140 11/02/07	43-140 09/16/08	43-141 09/25/01	43-166 09/26/01	43-166 06/19/02	43-166 09/23/09	43-167 09/26/01	43-167 09/23/09	43-168 09/27/01	43-168 12/17/02
Nickel	ug/L	NA	4.6	4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	9.3 J
Selenium	ug/L	NA	1.4 U	2.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA	NA	NA	NA	1.6 U
Silver	ug/L	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.4 UJ
Thallium	ug/L	NA	0.22 J	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.085 J	NA	NA	NA	NA	0.17 J
Vanadium	ug/L	NA	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	0.8 U
Zinc	ug/L	NA	6.5 U	35 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	26 J	NA	NA	NA	NA	18 J
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	1.2 U	1.2 U	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	1.2 U	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	1 U	84	NA	1.1 J	1 U	NA	NA	NA	NA	NA	1 U	24	NA	NA	37	NA	6.1	NA
Barium (Dissolved)	ug/L	46 J	120	NA	200 J	6.2	NA	NA	NA	NA	NA	86 J	410	NA	NA	400	NA	150	NA
Beryllium (Dissolved)	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	0.2 U	0.31	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	0.6 U	1.4 U	NA	0.6 U	0.6 U	NA	NA	NA	NA	NA	0.6 U	0.6 U	NA	NA	0.6 U	NA	0.6 U	NA
Cobalt (Dissolved)	ug/L	0.2 U	3.2	NA	1.2	0.97 J	NA	NA	NA	NA	NA	0.2 U	5.9	NA	NA	6.1	NA	2.5	NA
Copper (Dissolved)	ug/L	6.8	0.6 U	NA	2.5	1.5	NA	NA	NA	NA	NA	3.2	1.7	NA	NA	0.95	NA	3.5	NA
Cyanide (dissolved)	ug/L	5 U	5 U	NA	6.4	24	NA	NA	NA	NA	NA	1.8 J	5 U	NA	NA	1.1 J	NA	1.6 J	NA
Lead (Dissolved)	ug/L	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	0.4 UJ	760 J	NA	350 J	13 J	NA	NA	NA	NA	NA	4.2 J	1,600	NA	NA	280	NA	1,400 J	NA
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	2.2	5.9	NA	7.2	0.95	NA	NA	NA	NA	NA	4	13	NA	NA	28	NA	13	NA
Selenium (Dissolved)	ug/L	1.4 U	1.4 U	NA	1.7 U	3.5 J	NA	NA	NA	NA	NA	2.2 U	1.4 U	NA	NA	2.4 J	NA	1.8 J	NA
Silver (Dissolved)	ug/L	0.4 UJ	0.4 U	NA	0.4 UJ	0.4 UJ	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA
Thallium (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	0.8 U	0.8 U	NA	0.8 U	0.8 U	NA	NA	NA	NA	NA	0.8 U	0.8 U	NA	NA	0.8 U	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	14	8.7 U	NA	11	8.2	NA	NA	NA	NA	NA	6 U	19	NA	NA	18	NA	14 J	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6	NA	NA	NA	10.72	NA	3.777	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.1	NA	NA	NA	130.7 -	NA	37.2 -	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.06	NA	NA	NA	7.28	NA	7.27	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	NA	NA	NA	76	NA	70	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.46	NA	NA	NA	18.87	NA	19.4	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.32	NA	NA	NA	1.61	NA	1.29	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,380	NA	NA	NA	220	NA	140	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-220 09/25/01	43-242 09/25/01	55-1 09/26/01	55-1 06/12/02	55-1 03/20/03	55-2 09/26/01	55-2 03/20/03	55-3 09/26/01	55-3 06/12/02	55-3 03/21/03	55-3 10/08/04	55-4 09/26/01	55-4 06/12/02	55-4 03/21/03	55-4 10/08/04	55-5 09/26/01	55-5 06/12/02	55-5 03/20/03
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1.1	1 U	1 U [1 U]	0.78 J	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 UJ	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 UJ	NA	NA	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	30 U	1 U	1 U	1 U	30 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1.4	1 U	32	27	15 [15]	5.8	3	8	NA	NA	4	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA	2 U	5 U	5 U	5 U	2 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	0.3 J	130 D	6.4	1 U	140	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	25 U	25 U [25 U]	25 U	25 U	25 U	NA	NA	30 U	25 U	25 U	25 U	30 U	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	NA	NA	1 U	50 U	50 U	50 U	1 U	50 U	50 U	50 U
Acetone	ug/L	25 U	25 U	25 U	9.2 J	25 U [25 U]	25 U	25 U	25 U	NA	NA	30 U	25 U	25 U	25 U	30 U	25 U	2.2 J	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	10	18	1.5 [1.6]	0.56 J	1 U	1 U	NA	NA	0.2 J	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Bromomethane	ug/L	1 UJ	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 UJ	NA	NA	2 UJ	1 U	1 U	1 UJ	2 UJ	1 UJ	1 U	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 UJ [5 UJ]	5 U	5 UJ	5 U	NA	NA	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 UJ
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	45	79	9.2 [11]	1 U	1 U	1 U	NA	NA	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	2.3	4.6	2.1	0.9 J	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 UJ [1 UJ]	1 U	1 UJ	1 U	NA	NA	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ
cis-1,2-Dichloroethene	ug/L	3.9	1 U	1.5	0.7 J	1.2 [1.2]	1.8	1 U	2.4	NA	NA	2	4.8	1 U	1 U	7	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA	1 U	5 U	5 U	5 U	1 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA	1 U	5 U	5 U	5 U	1 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	NA	NA	1 U	2 U	2 U	2 U	1 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA	10 UJ	5 U	5 U	5 UJ	10 UJ	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	0.79 J	0.76 J	5 U [5 U]	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	20 U	1 U	1 U	1 U	20 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 U	0.53 J	5 U	5 U [5 U]	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-220 09/25/01	43-242 09/25/01	55-1 09/26/01	55-1 06/12/02	55-1 03/20/03	55-2 09/26/01	55-2 03/20/03	55-3 09/26/01	55-3 06/12/02	55-3 03/21/03	55-3 10/08/04	55-4 09/26/01	55-4 06/12/02	55-4 03/21/03	55-4 10/08/04	55-5 09/26/01	55-5 06/12/02	55-5 03/20/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.51 J	NA	NA	1 U	1.1	1 U	1 U	4 J	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	0.8 J	1 U	0.94 J	1 U	1 U [1 U]	0.54 J	1 U	4.3	NA	NA	2	44	15	11	7	0.57 J	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	28	20 J	13 [13]	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	18	10 J	6.1
SVOC																			
1,1'-Biphenyl	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	2.46 J	NA	5 J	5.7 U	NA	NA
2,4,5-Trichlorophenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2,4,6-Trichlorophenol	ug/L	4 U	4 U	4.4 U	NA	NA	4.4 U	NA	4.4 U	NA	NA	NA	4.4 U	4 U	NA	5 U	4.6 U	NA	NA
2,4-Dichlorophenol	ug/L	10 U	10 U	11 U	NA	NA	11 U	NA	11 U	NA	NA	NA	11 U	10 U	NA	10 U	11 U	NA	NA
2,4-Dimethylphenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2,4-Dinitrophenol	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
2,4-Dinitrotoluene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2,6-Dinitrotoluene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2-Chloronaphthalene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2-Chlorophenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2-Methylnaphthalene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
2-Methylphenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
2-Nitrophenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
3&4-Methylphenol	ug/L	10 UJ	10 UJ	11 UJ	NA	NA	11 UJ	NA	11 UJ	NA	NA	NA	11 UJ	10 UJ	NA	NA	11 UJ	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	20 U	22 UJ	NA	NA	22 UJ	NA	22 UJ	NA	NA	NA	22 UJ	20 U	NA	20 U	23 UJ	NA	NA
4-Bromophenyl-phenylether	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
4-Chloroaniline	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 UJ	23 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
4-Nitroaniline	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
4-Nitrophenol	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
Acenaphthene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Acenaphthylene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Acetophenone	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Anthracene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Atrazine	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Benzaldehyde	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Benzo(a)anthracene	ug/L	1 U	1 U	1.1 U	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	1.1 U	1 U	NA	1 U	1.1 U	NA	NA
Benzo(a)pyrene	ug/L	2 U	2 U	2.2 U	NA	NA	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	2 U	NA	2 U	2.3 U	NA	NA
Benzo(b)fluoranthene	ug/L	2 U	2 U	2.2 U	NA	NA	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	2 U	NA	2 U	2.3 U	NA	NA
Benzo(g,h,i)perylene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Benzo(k)fluoranthene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	1 U	1 U	1.1 U	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	23.2	1 U	NA	26	1.1 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	0.6 J	1.56 J	NA	NA
Butylbenzylphthalate	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Caprolactam	ug/L	10 U	10 U	11 U	NA	NA	11 U	NA	11 U	NA	NA	NA	11 U	1.83 J	NA	10 U	11 U	NA	NA
Carbazole	ug/L	10 U	10 U	11 U	NA	NA	11 U	NA	11 U	NA	NA	NA	11 U	10 U	NA	10 U	11 U	NA	NA
Chrysene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	2 U	2 U	2.2 U	NA	NA	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	2 U	NA	2 U	2.3 U	NA	NA
Dibenzofuran	ug/L	4 U	4 U	4.4 U	NA	NA	4.4 U	NA	4.4 U	NA	NA	NA	4.4 U	4 U	NA	5 U	4.6 U	NA	NA
Diethylphthalate	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-220 09/25/01	43-242 09/25/01	55-1 09/26/01	55-1 06/12/02	55-1 03/20/03	55-2 09/26/01	55-2 03/20/03	55-3 09/26/01	55-3 06/12/02	55-3 03/21/03	55-3 10/08/04	55-4 09/26/01	55-4 06/12/02	55-4 03/21/03	55-4 10/08/04	55-5 09/26/01	55-5 06/12/02	55-5 03/20/03
Dimethylphthalate	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Di-n-Butylphthalate	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Di-n-Octylphthalate	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Fluoranthene	ug/L	2 U	2 U	2.2 U	NA	NA	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	2 U	NA	2 U	2.3 U	NA	NA
Fluorene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Hexachlorobenzene	ug/L	1 U	1 U	1.1 U	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	1.1 U	1 U	NA	5 U	1.1 U	NA	NA
Hexachlorobutadiene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Hexachlorocyclopentadiene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Hexachloroethane	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2 U	2 U	2.2 U	NA	NA	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	2 U	NA	2 U	2.3 U	NA	NA
Isophorone	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Methylphenols, Total	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Naphthalene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Nitrobenzene	ug/L	2 U	2 U	2.2 U	NA	NA	2.2 U	NA	2.2 U	NA	NA	NA	2.2 U	2 U	NA	5 U	2.3 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
N-Nitrosodiphenylamine	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Pentachlorophenol	ug/L	20 U	20 U	22 U	NA	NA	22 U	NA	22 U	NA	NA	NA	22 U	20 U	NA	20 U	23 U	NA	NA
Phenanthrene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
Phenol	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	5 U	5.7 U	NA	NA
Pyrene	ug/L	5 U	5 U	5.6 U	NA	NA	5.5 U	NA	5.6 U	NA	NA	NA	5.6 U	5 U	NA	2 U	5.7 U	NA	NA
PCB																			
Aroclor-1016	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1221	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1232	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1242	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1248	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1254	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1260	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.11 U	0.11 U	0.12 U	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Total PCBs (Dissolved)	ug/L	0.1 U	0.1 U	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.13 U	NA	NA	NA	0.1 U	NA	NA
Inorganic																			
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	1.2 U	0.5 J	5 U	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	69	57	86	NA	1 U	1 U	2 U	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	130 J	120	NA	NA	250 J	83	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	0.4 UJ	0.4 U	1 U	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.16 J	0.049 J	NA	NA	0.38	0.12 J	0.8	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	6.2	1.1	NA	NA	13	86	136	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20	16	NA	NA	5.6	2.4	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	13	1.8	NA	NA	4.1	4.3	NA	NA	NA	NA
Cyanide (total)	ug/L	5 U	1.3 J	1.9 J	NA	NA	4.6 J	NA	6.6	NA	3.2 J	NA	50	NA	130	86	5 U	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.5 J	0.26 J	NA	NA	0.39 J	0.4 U	3 U	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	750 J	95	NA	NA	2,900 J	380	1,270	NA	NA	NA
Mercury	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	43-220 09/25/01	43-242 09/25/01	55-1 09/26/01	55-1 06/12/02	55-1 03/20/03	55-2 09/26/01	55-2 03/20/03	55-3 09/26/01	55-3 06/12/02	55-3 03/21/03	55-3 10/08/04	55-4 09/26/01	55-4 06/12/02	55-4 03/21/03	55-4 10/08/04	55-5 09/26/01	55-5 06/12/02	55-5 03/20/03
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	67	58	NA	NA	41	48	55	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.5 J	3.5	NA	NA	0.76 J	1.6 U	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.12 J	0.2 U	NA	NA	0.05 J	4	2 U	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	12	0.8 U	NA	NA	0.8 U	0.8 U	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	72 J	30	NA	NA	16 J	4.9 J	NA	NA	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	2.1 U	1.2 U	1.2 U	NA	NA	1.2 U	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA
Arsenic (Dissolved)	ug/L	1 U	1.2	27	NA	NA	20	NA	58	NA	NA	NA	1.2 J	NA	NA	NA	1.8 J	NA	NA
Barium (Dissolved)	ug/L	96 J	260 J	240	NA	NA	320	NA	100	NA	NA	NA	180	NA	NA	NA	180	NA	NA
Beryllium (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	0.78	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	0.25	NA	NA	NA	0.2 U	NA	NA
Chromium Total (Dissolved)	ug/L	0.6 U	0.6 U	0.6 U	NA	NA	0.79	NA	1.2	NA	NA	NA	4.7	NA	NA	NA	0.6 U	NA	NA
Cobalt (Dissolved)	ug/L	0.8	3.3	0.31	NA	NA	3.9	NA	15	NA	NA	NA	7.9	NA	NA	NA	0.2 U	NA	NA
Copper (Dissolved)	ug/L	11	11	0.6 U	NA	NA	5.3	NA	7.1	NA	NA	NA	2.7	NA	NA	NA	0.6 U	NA	NA
Cyanide (dissolved)	ug/L	5 U	1 J	1.4 J	NA	NA	5.1	NA	6.4	NA	NA	NA	48	NA	NA	NA	5 U	NA	NA
Lead (Dissolved)	ug/L	0.4 U	0.4 U	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA
Manganese (Dissolved)	ug/L	410 J	480 J	93 J	NA	NA	440	NA	170	NA	NA	NA	1,000 J	NA	NA	NA	180	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	4.6	8.2	3.8	NA	NA	13	NA	64	NA	NA	NA	35	NA	NA	NA	2.9	NA	NA
Selenium (Dissolved)	ug/L	1.5 U	4 J	2.4 J	NA	NA	1.6	NA	2.4 J	NA	NA	NA	3.9 J	NA	NA	NA	1.4 U	NA	NA
Silver (Dissolved)	ug/L	0.4 UJ	0.4 UJ	0.4 UJ	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	0.4 UJ	NA	NA	NA	0.4 U	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	0.43	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	0.8 U	0.8 U	NA	NA	0.8 U	NA	0.8 U	NA	NA	NA	0.8 U	NA	NA	NA	0.8 U	NA	NA
Zinc (Dissolved)	ug/L	11	12	11	NA	NA	9.5	NA	13	NA	NA	NA	14	NA	NA	NA	11	NA	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	55-5 10/04/04	70-100 09/24/01	70-100 06/13/02	70-100 03/27/03	70-102 09/27/01	70-109 09/24/01	70-109 03/26/03	70-160 09/26/01	70-160 06/17/02	70-160 03/28/03	70-163 09/28/01	70-163 06/20/02	70-163 03/28/03	70-163 06/07/13	70-164R 06/07/13	70-165 09/26/01	70-165 06/22/02
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	200 UX [200 UX]	30 U	1 UJ	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	10 UX [10 UX]	2 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	25 U	25 U	25 U	1.2 J	1.2 J	25 U	25 U	25 U	NA	25 U	NA	NA	100 UX [100 UX]	20 U	25 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	NA	NA	300 UX [300 UX]	50 U	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	50 U	50 U	50 U	50 U	1 J	50 U	50 U	50 U	NA	50 U	NA	NA	50 UX [50 UX]	10 U	50 U	NA
Acetone	ug/L	30 U	25 U	25 U	25 U	6.1 J	25 U	25 U	25 U	25 U	NA	25 U	NA	NA	100 UX [100 UX]	20 U	25 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	3	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Bromoform	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Bromomethane	ug/L	2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	10 UX [10 UX]	2 U	1 UJ	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	NA	5 U	NA	NA	30 UX [30 UX]	5 U	5 U	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Chloroethane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	1 U	0.59 J	0.71 J	1 U	1 U	1 U	1 U	1 U	1 U	NA	3.2	NA	NA	5 UX [5 UX]	1 U	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Cyclohexane	ug/L	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	5 UX [5 UX]	1 U	5 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	5 UX [5 UX]	1 U	5 U	NA
m&p-Xylene	ug/L	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	NA	NA	10 UX [10 UX]	2 U	2 U	NA
Methyl acetate	ug/L	10 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	NA	5 U	NA	NA	50 UX [50 UX]	10 U	5 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	30 UX [30 UX]	5 U	5 U	NA
Methylcyclohexane	ug/L	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	100 UX [100 UX]	20 U	1 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	NA	5 U	NA	NA	30 UX [30 UX]	5 U	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 UX [30 UX]	5 U	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 UX [5 UX]	1 U	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	55-5 10/04/04	70-100 09/24/01	70-100 06/13/02	70-100 03/27/03	70-102 09/27/01	70-109 09/24/01	70-109 03/26/03	70-160 09/26/01	70-160 06/17/02	70-160 03/28/03	70-163 09/28/01	70-163 06/20/02	70-163 03/28/03	70-163 06/07/13	70-164R 06/07/13	70-165 09/26/01	70-165 06/22/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	2.1	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	5 UX [5 UX]	1 U	1 U	NA
Vinyl Chloride	ug/L	22	3	2.9 J	2.7	1 U	1 U	1 U	1 U	1 U	NA	0.63 J	NA	NA	5 UX [5 UX]	1 U	1 U	NA
SVOC																		
1,1'-Biphenyl	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U	NA	NA	4.1 U	4.4 U	NA	4.3 U	NA	NA	4.1 U	NA	NA	NA	NA	4 U	NA
2,4-Dichlorophenol	ug/L	NA	10 U	NA	NA	10 U	11 U	NA	11 U	NA	NA	10 U	NA	NA	NA	NA	10 U	NA
2,4-Dimethylphenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2,4-Dinitrophenol	ug/L	NA	20 UJ	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2-Chloronaphthalene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2-Chlorophenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2-Methylnaphthalene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2-Methylphenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
2-Nitroaniline	ug/L	NA	20 U	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
2-Nitrophenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
3&4-Methylphenol	ug/L	NA	10 UJ	NA	NA	10 UJ	11 UJ	NA	11 UJ	NA	NA	10 UJ	NA	NA	NA	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	NA	20 UJ	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 UJ	NA	NA	20 U	22 U	NA	22 UJ	NA	NA	21 U	NA	NA	NA	NA	20 UJ	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
4-Chloroaniline	ug/L	NA	20 U	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	R	NA	NA	5.1 U	R	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
4-Nitroaniline	ug/L	NA	20 U	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
4-Nitrophenol	ug/L	NA	20 U	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
Acenaphthene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Acenaphthylene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Acetophenone	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Anthracene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Atrazine	ug/L	NA	5 U	NA	NA	5.1 UJ	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Benzaldehyde	ug/L	NA	5 UJ	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Benzo(a)anthracene	ug/L	NA	1 U	NA	NA	1 UJ	1.1 U	NA	1.1 U	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Benzo(a)pyrene	ug/L	NA	2 U	NA	NA	2 U	2.2 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	NA	2 U	NA	NA	2 U	2.2 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U	NA	NA	1 U	1.1 U	NA	1.1 U	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U	NA	NA	5.1 UJ	1.38 J	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	1.02 J	NA
Butylbenzylphthalate	ug/L	NA	5 U	NA	NA	5.1 UJ	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Caprolactam	ug/L	NA	10 U	NA	NA	10 U	11 U	NA	11 U	NA	NA	10 U	NA	NA	NA	NA	10 U	NA
Carbazole	ug/L	NA	10 U	NA	NA	10 U	11 U	NA	11 U	NA	NA	10 U	NA	NA	NA	NA	10 U	NA
Chrysene	ug/L	NA	5 U	NA	NA	5.1 UJ	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U	NA	NA	2 U	2.2 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA
Dibenzofuran	ug/L	NA	4 U	NA	NA	4.1 U	4.4 U	NA	4.3 U	NA	NA	4.1 U	NA	NA	NA	NA	4 U	NA
Diethylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	55-5 10/04/04	70-100 09/24/01	70-100 06/13/02	70-100 03/27/03	70-102 09/27/01	70-109 09/24/01	70-109 03/26/03	70-160 09/26/01	70-160 06/17/02	70-160 03/28/03	70-163 09/28/01	70-163 06/20/02	70-163 03/28/03	70-163 06/07/13	70-164R 06/07/13	70-165 09/26/01	70-165 06/22/02
Dimethylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Di-n-Butylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	1.76 J	NA
Di-n-Octylphthalate	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Fluoranthene	ug/L	NA	2 U	NA	NA	2 U	2.2 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA
Fluorene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Hexachlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1.1 U	NA	1.1 U	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Hexachlorobutadiene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Hexachloroethane	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U	NA	NA	2 U	2.2 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA
Isophorone	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Methylphenols, Total	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Naphthalene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Nitrobenzene	ug/L	NA	2 U	NA	NA	2 U	2.2 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Pentachlorophenol	ug/L	NA	20 U	NA	NA	20 U	22 U	NA	22 U	NA	NA	21 U	NA	NA	NA	NA	20 U	NA
Phenanthrene	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Phenol	ug/L	NA	5 U	NA	NA	5.1 U	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
Pyrene	ug/L	NA	5 U	NA	NA	5.1 UJ	5.6 U	NA	5.4 U	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA
PCB																		
Aroclor-1016	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1221	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1232	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1242	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1248	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1254	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1260	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.11 U	NA	NA	0.1 U	0.11 U	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Total PCBs (Dissolved)	ug/L	NA	0.11 U	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.12 U	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	1.2 U	NA	NA	NA	1.2 U	1.2 U [1.2 U]	1.2 U	1.2 U	1.2 U	NA	NA	NA	1.2 U
Arsenic	ug/L	NA	NA	NA	NA	4.6 J	NA	NA	NA	20	24 [25]	10 J	3.6	5.3	NA	NA	NA	2.7
Barium	ug/L	NA	NA	NA	NA	85 J	NA	NA	NA	280	290 [290]	68 J	26	38	NA	NA	NA	20
Beryllium	ug/L	NA	NA	NA	NA	0.75 J	NA	NA	NA	0.4 UJ	0.4 U [0.4 U]	2.3 J	0.4 U	0.4 U	NA	NA	NA	0.4 U
Cadmium	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.44 J	0.19 J	0.13 J	NA	NA	NA	0.064 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	1	NA	NA	NA	0.6 U	1.4 [1.4]	1.3	0.54 J	0.89	NA	NA	NA	0.42 J
Cobalt	ug/L	NA	NA	NA	NA	1.1 J	NA	NA	NA	0.34	0.96 [0.94]	16 J	7.6	14	NA	NA	NA	1.9
Copper	ug/L	NA	NA	NA	NA	2.4 J	NA	NA	NA	1.7 U	2.1 [1.8]	3.2 J	3.7	3.1	NA	NA	NA	4.8
Cyanide (total)	ug/L	NA	1.6 J	NA	NA	5 U	100	NA	5 U	5 U	5 UJ [5 UJ]	5 U	5 U	5 UJ	NA	NA	5 U	5 U
Lead	ug/L	NA	NA	NA	NA	0.4 J	NA	NA	NA	0.083 J	0.42 [0.42]	0.29 J	0.37 J	0.3 J	NA	NA	NA	0.23 J
Manganese	ug/L	NA	NA	NA	NA	460 J	NA	NA	NA	110 J	140 [140]	3,200 J	2,100	2,400	738 [511]	NA	NA	1,200 J
Mercury	ug/L	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.178 J	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	55-5 10/04/04	70-100 09/24/01	70-100 06/13/02	70-100 03/27/03	70-102 09/27/01	70-109 09/24/01	70-109 03/26/03	70-160 09/26/01	70-160 06/17/02	70-160 03/28/03	70-163 09/28/01	70-163 06/20/02	70-163 03/28/03	70-163 06/07/13	70-164R 06/07/13	70-165 09/26/01	70-165 06/22/02
Nickel	ug/L	NA	NA	NA	NA	18 J	NA	NA	NA	2.3	9.6 [9.7]	28 J	11	39	NA	NA	NA	4.2
Selenium	ug/L	NA	NA	NA	NA	12 J	NA	NA	NA	1.4 U	1.6 U [1.6 U]	1.5 J	0.58 J	4.7 J	NA	6	NA	3.1
Silver	ug/L	NA	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	0.4 U [0.4 U]	0.4 U	0.4 UJ	0.4 U	NA	NA	NA	0.4 UJ
Thallium	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.67 U	0.17 J	0.18 J	NA	NA	NA	0.2 U
Vanadium	ug/L	NA	NA	NA	NA	0.8 U	NA	NA	NA	0.8 U	1.2 [1.2]	0.8 U	0.27 J	0.24 J	NA	NA	NA	0.3 J
Zinc	ug/L	NA	NA	NA	NA	65 J	NA	NA	NA	10	15 [16]	16 J	35 UJ	9.5	NA	NA	NA	29
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	2.9 U	1.2 U	NA	1.2 U	1.2 U	NA	1.2 U	1.2 U	NA	NA	NA	1.3	1.7
Arsenic (Dissolved)	ug/L	NA	9.6 J	NA	NA	2.8 J	2.4	NA	35	22	NA	7.5 U	1.9	NA	NA	NA	1.3 J	2.9
Barium (Dissolved)	ug/L	NA	68 J	NA	NA	57	21	NA	310	270	NA	44	19	NA	NA	NA	37	17
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U	0.4 UJ	NA	0.4 U	0.4 UJ	NA	0.4 U	0.4 U	NA	NA	NA	0.4 U	0.4 U
Cadmium (Dissolved)	ug/L	NA	0.32 J	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U
Chromium Total (Dissolved)	ug/L	NA	0.79	NA	NA	0.6 U	0.6 U	NA	0.6 U	0.72	NA	0.6 U	0.6 U	NA	NA	NA	0.6 U	0.6 U
Cobalt (Dissolved)	ug/L	NA	0.29	NA	NA	0.91	0.22	NA	0.34	0.31	NA	10	5.9	NA	NA	NA	1.1	1.7
Copper (Dissolved)	ug/L	NA	1.7	NA	NA	1.2	4.2 J	NA	0.6 U	1.2	NA	3.3 U	5.4	NA	NA	NA	5.7	15
Cyanide (dissolved)	ug/L	NA	1.6 J	NA	NA	1.5 J	99	NA	5 U	5 U	NA	5 U	5 U	NA	NA	NA	5 U	5 U
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA	19	0.4 U
Manganese (Dissolved)	ug/L	NA	150 J	NA	NA	410 J	59	NA	110	110	NA	2,500	1,600	NA	NA	NA	720 J	1,100 J
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.129 J	NA	NA	NA	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	6.8	NA	NA	14	1.7	NA	3.2	2.1	NA	16	9.2	NA	NA	NA	14	3.5
Selenium (Dissolved)	ug/L	NA	2.1 J	NA	NA	17	1.4 U	NA	1.4 U	1.4 U	NA	3.9 J	1.4 U	NA	NA	NA	4.2 J	2.7
Silver (Dissolved)	ug/L	NA	0.4 UJ	NA	NA	0.4 UJ	0.4 UJ	NA	0.4 U	0.4 U	NA	0.4 U	0.4 UJ	NA	NA	NA	0.4 UJ	0.4 UJ
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.21	0.2 U	NA	NA	NA	0.2 U	0.2 U
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	0.8 U	0.8 U	NA	0.8 U	0.8 U	NA	0.8 U	0.8 U	NA	NA	NA	0.8 U	0.8 U
Zinc (Dissolved)	ug/L	NA	6 U	NA	NA	73	6.8	NA	26	11	NA	14	11 J	NA	NA	NA	13	10
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	70-165 03/28/03	70-165 10/07/04	70-165 10/29/07	70-165 09/16/08	70-165 09/24/09	70-165 10/18/10	70-165 10/24/11	70-165 11/07/12	84-2 10/17/01	84-6 10/17/01	84-6 06/26/02	84-6R2 09/15/03	84-6R2 10/05/04	84-6R2 06/09/05	84-6R2D 07/29/05	84-07D 07/28/05	84-07S 04/05/05
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	30 U	NA	NA	30 U	NA	30 U	30 U	1 U [1 U]	1 U	1 UJ	NA	30 U	200 U	300 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,1-Dichloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	3 J	5 U	10 U	1 U	1 U
1,1-Dichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	7
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	2 U	NA	NA	2 U	5 U	2 U	2 U	5 UJ [5 UJ]	5 UJ	5 U	NA	2 U	10 U	20 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1 U	NA	NA	1 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 UJ
1,2-Dibromoethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,2-Dichloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,2-Dichloropropane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U	NA	NA	0.1	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	30 U	NA	NA	20 U	30 UJ	20 U	20 U	25 U [25 U]	25 U	25 U	NA	30 U	100 U	300 U	30 U	30 U
2-Hexanone	ug/L	NA	50 U	NA	NA	50 U	50 UJ	50 U	50 U	50 U [50 U]	50 U	50 U	NA	50 UJ	300 U	500 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	1 U	NA	NA	10 U	50 U	10 U	10 U	50 U [50 U]	50 U	50 U	NA	1 U	5 U	10 UJ	1 UJ	1 U
Acetone	ug/L	NA	30 U	NA	NA	2	50 UJ	20 U	20 U	25 U [25 U]	25 U	25 U	NA	5 J	100 U	100 J	20 J	8 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	259	402	350	51	6
Bromobenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Bromoform	ug/L	NA	1 UJ	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 UJ	5 U	10 U	1 U	1 UJ
Bromomethane	ug/L	NA	2 UJ	NA	NA	2 U	5 U	2 U	2 U	1 U [1 U]	1 U	1 U	NA	2 UJ	10 U	20 U	2 U	R
Carbon Disulfide	ug/L	NA	5 UJ	NA	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	NA	5 U	30 U	50 U	5 U	5 U
Carbon Tetrachloride	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Chlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Chloroethane	ug/L	NA	1 UJ	NA	NA	1 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 UJ	5 U	10 U	1 U	1 U
Chloroform	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Chloromethane	ug/L	NA	1 U	NA	NA	1 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 UJ [1 UJ]	1 UJ	1 U	NA	2	5 U	10 U	27	293
cis-1,3-Dichloropropene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Cyclohexane	ug/L	NA	1 U	NA	NA	1 U	NA	1 U	1 U	5 U [5 U]	5 U	5 U	NA	1 U	2 J	10 UJ	1 UJ	1 UJ
Dibromochloromethane	ug/L	NA	1 U	NA	NA	1 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1 UJ	NA	NA	1 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	1 U	NA	NA	1 U	5 U	1 U	1 U	5 U [5 U]	5 U	5 U	NA	1 U	5 U	10 U	1 U	1 U
m&p-Xylene	ug/L	NA	1 U	NA	NA	1 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	NA	1 U	5 U	10 U	1 U	1 U
Methyl acetate	ug/L	NA	10 U	NA	NA	10 U	NA	10 U	10 U	5 U [5 U]	5 U	5 U	NA	10 U	50 U	100 UJ	10 U	10 U
Methyl tert-butyl ether	ug/L	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	NA	0.7 J	30 U	50 U	5 UJ	5 UJ
Methylcyclohexane	ug/L	NA	20 U	NA	NA	20 U	NA	20 U	20 U	1 U [1 U]	1 U	1 U	NA	20 U	100 U	200 U	20 U	20 U
Methylene Chloride	ug/L	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	NA	5 U	30 U	50 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	70-165 03/28/03	70-165 10/07/04	70-165 10/29/07	70-165 09/16/08	70-165 09/24/09	70-165 10/18/10	70-165 10/24/11	70-165 11/07/12	84-2 10/17/01	84-6 10/17/01	84-6 06/26/02	84-6R2 09/15/03	84-6R2 10/05/04	84-6R2 06/09/05	84-6R2D 07/29/05	84-07D 07/28/05	84-07S 04/05/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	1 U	NA	NA	0.1	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	3 J	0.5 J	1 U
trans-1,2-Dichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	2	20
trans-1,3-Dichloropropene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	0.7 J	191
Trichlorofluoromethane	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	5 U	10 U	1 U	1 U
Vinyl Chloride	ug/L	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U [1 U]	2.1	1.3	NA	4	5 U	10 U	8	61
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U [4 U]	4.2 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	11 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ [10 UJ]	11 UJ	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 UJ [5 UJ]	5.3 UJ	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	1.1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	2.1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	2.1 U	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	1.1 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	11 U	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	11 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	2.1 U	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U [4 U]	4.2 U	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	2.1 U	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	1.1 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	2.1 U	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	2.1 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U [20 U]	21 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U [5 U]	5.3 U	NA	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	0.6 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	1.9 J	NA	NA	NA	NA	NA
Arsenic	ug/L	2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.6 J	13 J	NA	NA	NA	NA	NA
Barium	ug/L	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	85	170	NA	NA	NA	NA	NA
Beryllium	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	210 J	1 U	NA	NA	NA	NA
Cadmium	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 J	2.9 J	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.9	10 J	5 U	NA	NA	NA	NA
Cobalt	ug/L	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9	8.3	NA	NA	NA	NA	NA
Copper	ug/L	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.4	24 J	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5 UJ	NA	NA	NA	NA	NA	NA	NA	5 U [1.3 J]	1.9 J	5 UJ	9.1	NA	NA	NA	NA	NA
Lead	ug/L	27	55	54	90 [92]	48.9 [49.2]	381 J [83 J]	NA	NA	NA	NA	0.59	2.6	NA	NA	NA	NA	NA
Manganese	ug/L	460	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	430 J	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.0821 J	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	70-165 03/28/03	70-165 10/07/04	70-165 10/29/07	70-165 09/16/08	70-165 09/24/09	70-165 10/18/10	70-165 10/24/11	70-165 11/07/12	84-2 10/17/01	84-6 10/17/01	84-6 06/26/02	84-6R2 09/15/03	84-6R2 10/05/04	84-6R2 06/09/05	84-6R2D 07/29/05	84-07D 07/28/05	84-07S 04/05/05
Nickel	ug/L	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.6	29 J	5 U	NA	NA	NA	NA
Selenium	ug/L	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	2.5 J	NA	NA	NA	NA	NA
Silver	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	1.9 J	NA	NA	NA	NA	NA
Thallium	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 J	1.4	NA	NA	NA	NA	NA
Vanadium	ug/L	0.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.26 J	0.8 U	NA	NA	NA	NA	NA
Zinc	ug/L	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	36 J	53 J	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U [1.2 U]	1.2 U	1.2 U	3.2	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.6 J [1.8 J]	13	7.6 J	9.7 J	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	26 [26]	68	57	150	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	0.4 U	0.4 U	260 J	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	2.5 J	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.8 [3.4]	450	3	8.4 J	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.22 [0.22]	20	3.9	6.9 J	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.7 [4.2]	64	4.6	19 J	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 J [1.3 J]	1.6 J	5 UJ	5	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	0.83	0.4 U	1.1	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	8.5 [8.8]	420	77	350	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	0.047 J	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.4 [2.3]	910	4.9	24 J	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U [1.4 U]	2.1 J	1.6 U	1.6 U	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	0.4 U	0.4 UJ	1.7 J	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.21	1.2	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U [0.8 U]	2	0.8 U	0.8 U	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	6 U [7.2]	45	19	39 J	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	0.843	1.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	145.2	10.4 -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	6.63	8.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	60	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	19.33	17.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	2.35	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	240	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
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Location ID: / Date Collected:	Units	84-07S 06/08/05	86-3 09/26/01	86-3 12/19/02	86-100 09/24/01	86-100 06/18/02	86-100 04/01/03	86-100 10/07/04	86-100 06/05/13	87-FP2 09/24/01	87-FP2 06/19/02	87-FP3 09/27/01	87-FP3 06/18/02	87-FP3 04/04/03	87-FP3 06/05/13	87-FP4 10/06/04	87-FP4 11/02/07	87-FP4 09/12/08	87-FP5 09/28/01
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1.2	1 U	1.2	0.84 J	1 U	20 UY	0.3 J	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	200 U	1 U	NA	1 U	1 U	1 U	30 U	30 U [30 U]	1 U	1 U	1 U	1 U	1 U	600 UY	30 U	30 U	30 U	1 U
1,1,2-Trichloroethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	3.9	1.2	1.7	20 UY	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1.8	1.8	31	54	15	20 UY	1 U	1 U	1 U	1.8
1,1-Dichloroethene	ug/L	8	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	27	11	20	20 UY	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	10 U	5 U	NA	5 U	5 U	5 U	2 U	2 U [2 U]	5 U	5 U	5 U	5 U	5 U	40 UY	2 U	2 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	5 U	1 U	NA	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.73 J	0.74 J	1 U	20 UY	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	100 U	25 U	NA	25 U	25 U	25 U	30 U	20 U [20 U]	25 U	25 U	25 U	25 U	25 U	400 UY	30 U	20 U	20 U	2.9 J
2-Hexanone	ug/L	300 U	50 U	NA	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	1,000 UY	50 UJ	50 U	50 UJ	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	5 U	50 U	NA	50 U	50 U	50 U	1 U	10 U [10 U]	50 U	50 U	50 U	50 U	50 U	200 UY	1 U	10 U	10 U	50 U
Acetone	ug/L	100 U	25 U	NA	25 U	25 U	25 U	30 U	20 U [20 U]	25 U	25 U	1.1 J	25 U	25 U	400 UY	30 U	20 U	20 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	3 J	1 U	NA	1 U	1 U	1 U	0.3 J	1 U [1 U]	1 U	1 U	0.76 J	1	1.1	20 UY	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Bromoform	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 UJ	1 U	1 U	1 U
Bromomethane	ug/L	10 U	1 UJ	NA	1 U	1 U	1 U	2 UJ	2 U [2 U]	1 U	1 U	1 U	1 U	1 U	40 UY	2 UJ	2 U	2 U	1 U
Carbon Disulfide	ug/L	30 U	5 U	NA	5 U	5 U	5 U	5 UJ	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	100 UY	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Chloroethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 UJ	1 U [1 U]	1 U	1 U	120 D	280 D	120 D	20 UY	1 UJ	1 U	1 U	1 U
Chloroform	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	0.4 J	1 U	1 U	1 U
Chloromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	322	1 U	NA	5.2	47	2.7	8	8 [10]	12	11	450 D	190 D	200 D	290 Y	1	2	2	54
cis-1,3-Dichloropropene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	NA	5 U	5 U	5 U	1 U	1 U [1 U]	5 U	5 U	5 U	5 U	5 U	20 UY	1 U	1 U	1 UJ	5 U
Dibromochloromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	NA	5 U	5 U	5 U	1 U	1 U [1 U]	5 U	5 U	5 U	5 U	5 U	20 UY	1 U	1 U	1 U	5 U
m&p-Xylene	ug/L	5 U	2 U	NA	2 U	2 U	2 U	1 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	40 UY	1 U	1 U	1 U	2 U
Methyl acetate	ug/L	50 U	5 U	NA	5 U	5 U	5 U	10 U	10 U [10 U]	5 U	5 U	5 U	5 U	5 U	200 UY	10 U	10 U	10 U	5 U
Methyl tert-butyl ether	ug/L	30 U	5 U	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	100 UY	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	100 U	1 U	NA	1 U	1 U	1 U	20 U	20 U [20 U]	1 U	1 U	1 U	1 U	1 U	400 UY	20 U	20 U	20 U	1 U
Methylene Chloride	ug/L	30 U	5 U	NA	5 U	5 UJ	5 U	5 U	5 U [5 U]	5 U	5 U	2.4 J	5 U	5 U	100 UY	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	100 UY	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	20 UY	NA	NA	NA	NA
o-Xylene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U

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Location ID: / Date Collected:	Units	84-07S 06/08/05	86-3 09/26/01	86-3 12/19/02	86-100 09/24/01	86-100 06/18/02	86-100 04/01/03	86-100 10/07/04	86-100 06/05/13	87-FP2 09/24/01	87-FP2 06/19/02	87-FP3 09/27/01	87-FP3 06/18/02	87-FP3 04/04/03	87-FP3 06/05/13	87-FP4 10/06/04	87-FP4 11/02/07	87-FP4 09/12/08	87-FP5 09/28/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 UJ	41	15 J	18	40 Y	1 U	0.1 J	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	27	1 U	NA	3.6	8.2	1 U	4 J	5 [6]	3.3	0.97 J	16	8	12	20 UY	1 U	1 U	1 U	2.2
trans-1,3-Dichloropropene	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	258	1 U	NA	3.8	32	1.8	7	2 [2]	42	14	2,000 D	990 D	960 D	1,660 Y	23	3	5	12
Trichlorofluoromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	20 UY	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	105	1 U	NA	3.4	47 J	1 U	9	5 [8]	2.8	0.7 J	280 D	430 D	97 D	110 Y	1 U	1 U	1 U	6.3
SVOC																			
1,1'-Biphenyl	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2,4,5-Trichlorophenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2,4,6-Trichlorophenol	ug/L	NA	4.3 U	NA	4.4 U	NA	NA	NA	NA	4.2 U	NA	4.4 U	NA	NA	NA	NA	NA	NA	4 U
2,4-Dichlorophenol	ug/L	NA	11 U	NA	11 U	NA	NA	NA	NA	11 U	NA	11 U	NA	NA	NA	NA	NA	NA	10 U
2,4-Dimethylphenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2,4-Dinitrophenol	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 UJ	NA	22 UJ	NA	NA	NA	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2,6-Dinitrotoluene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2-Chlorophenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2-Methylnaphthalene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2-Methylphenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
2-Nitroaniline	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
3&4-Methylphenol	ug/L	NA	11 UJ	NA	11 UJ	NA	NA	NA	NA	11 U	NA	11 UJ	NA	NA	NA	NA	NA	NA	10 UJ
3,3'-Dichlorobenzidine	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	21 UJ	NA	22 U	NA	NA	NA	NA	21 UJ	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
4-Bromophenyl-phenylether	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
4-Chloro-3-Methylphenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 UJ	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
4-Chloroaniline	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
4-Chlorophenyl-phenylether	ug/L	NA	5.3 U	NA	R	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
4-Nitroaniline	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
Acenaphthene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Acenaphthylene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Acetophenone	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Anthracene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Atrazine	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Benzaldehyde	ug/L	NA	5.3 U	NA	5.6 UJ	NA	NA	NA	NA	5.3 UJ	NA	5.6 UJ	NA	NA	NA	NA	NA	NA	5 U
Benzo(a)anthracene	ug/L	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	NA	NA	1 U
Benzo(a)pyrene	ug/L	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	2 UJ
Benzo(b)fluoranthene	ug/L	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	2 UJ
Benzo(g,h,i)perylene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 UJ
Benzo(k)fluoranthene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 UJ
bis(2-Chloroethoxy)methane	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
bis(2-Chloroethyl)ether	ug/L	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	NA	NA	1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	3.19 J
Butylbenzylphthalate	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Caprolactam	ug/L	NA	11 U	NA	11 U	NA	NA	NA	NA	11 U	NA	11 U	NA	NA	NA	NA	NA	NA	10 U
Carbazole	ug/L	NA	11 U	NA	11 U	NA	NA	NA	NA	11 U	NA	11 U	NA	NA	NA	NA	NA	NA	10 U
Chrysene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Dibenzo(a,h)anthracene	ug/L	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	2 UJ
Dibenzofuran	ug/L	NA	4.3 U	NA	4.4 U	NA	NA	NA	NA	4.2 U	NA	4.4 U	NA	NA	NA	NA	NA	NA	4 U
Diethylphthalate	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	84-07S 06/08/05	86-3 09/26/01	86-3 12/19/02	86-100 09/24/01	86-100 06/18/02	86-100 04/01/03	86-100 10/07/04	86-100 06/05/13	87-FP2 09/24/01	87-FP2 06/19/02	87-FP3 09/27/01	87-FP3 06/18/02	87-FP3 04/04/03	87-FP3 06/05/13	87-FP4 10/06/04	87-FP4 11/02/07	87-FP4 09/12/08	87-FP5 09/28/01
Dimethylphthalate	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Di-n-Butylphthalate	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Di-n-Octylphthalate	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 UJ
Fluoranthene	ug/L	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	2 U
Fluorene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	1.1 U	NA	1.1 U	NA	NA	NA	NA	NA	NA	1 U
Hexachlorobutadiene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Hexachlorocyclopentadiene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Hexachloroethane	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	2 UJ
Isophorone	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Methylphenols, Total	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Naphthalene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Nitrobenzene	ug/L	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	2.1 U	NA	2.2 U	NA	NA	NA	NA	NA	NA	2 U
N-Nitroso-di-n-propylamine	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Pentachlorophenol	ug/L	NA	21 U	NA	22 U	NA	NA	NA	NA	21 U	NA	22 U	NA	NA	NA	NA	NA	NA	20 U
Phenanthrene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Phenol	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
Pyrene	ug/L	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	5.3 U	NA	5.6 U	NA	NA	NA	NA	NA	NA	5 U
PCB																			
Aroclor-1016	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1221	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1232	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1242	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1248	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1254	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1260	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Total PCBs (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.1 U
Inorganic																			
Antimony	ug/L	NA	NA	1.2 U	NA	1.2 U	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	4.2 J	NA	2.9	3 J	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA
Barium	ug/L	NA	NA	250 J	NA	1,200	660	1,440	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	0.4 U	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	0.048 J	NA	0.35	9.8	0.8	0.5 U [0.5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	25,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	0.54 J	NA	0.6 J	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	1.7 J	NA	1.9	72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	2.7 J	NA	26 J	51	NA	11 [7]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5 U	5 U	2.5 J	11	11	NA	NA	2.3 J	NA	1.9 J	NA	NA	NA	NA	NA	NA	2.4 J
Lead	ug/L	NA	NA	0.4 U	NA	3.4	33	6	19 [20]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	1,100 J	NA	1,200	1,700 J	NA	155 [150]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	84-07S 06/08/05	86-3 09/26/01	86-3 12/19/02	86-100 09/24/01	86-100 06/18/02	86-100 04/01/03	86-100 10/07/04	86-100 06/05/13	87-FP2 09/24/01	87-FP2 06/19/02	87-FP3 09/27/01	87-FP3 06/18/02	87-FP3 04/04/03	87-FP3 06/05/13	87-FP4 10/06/04	87-FP4 11/02/07	87-FP4 09/12/08	87-FP5 09/28/01
Nickel	ug/L	NA	NA	7.3 J	NA	9.8	240	6	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	1.6 U	NA	1.4 U	5.9 J	NA	5 U [5 U]	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Silver	ug/L	NA	NA	0.4 UJ	NA	1.3	0.37 J	NA	0.5 U [0.5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	0.2 U	NA	0.2 U	0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	0.8 U	NA	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	20 J	NA	68 J	6,000	42	9 [6]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	1.3	NA	1.2 U	NA	NA	NA	NA	1.2 U	NA	1.2 U	NA	NA	NA	NA	NA	NA	1.2 U
Arsenic (Dissolved)	ug/L	NA	5.3 J	NA	5.8	NA	NA	NA	NA	3 J	NA	22	NA	NA	NA	NA	NA	NA	3.5 U
Barium (Dissolved)	ug/L	NA	260	NA	2,500	NA	NA	NA	NA	210 J	NA	170	NA	NA	NA	NA	NA	NA	40
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	0.4 UJ	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.84	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U
Chromium Total (Dissolved)	ug/L	NA	1.9	NA	0.6 U	NA	NA	NA	NA	0.6 U	NA	0.93	NA	NA	NA	NA	NA	NA	0.6 U
Cobalt (Dissolved)	ug/L	NA	3.5	NA	4.9	NA	NA	NA	NA	0.57	NA	1.1	NA	NA	NA	NA	NA	NA	0.28
Copper (Dissolved)	ug/L	NA	1.6	NA	50 J	NA	NA	NA	NA	2.9	NA	11	NA	NA	NA	NA	NA	NA	4.9 U
Cyanide (dissolved)	ug/L	NA	5 U	NA	3.4 J	NA	NA	NA	NA	2.5 J	NA	2.2 J	NA	NA	NA	NA	NA	NA	3.1 J
Lead (Dissolved)	ug/L	NA	0.4 U	NA	1.3	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	1,300	NA	1,100	NA	NA	NA	NA	250 J	NA	400 J	NA	NA	NA	NA	NA	NA	160
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	19	NA	14	NA	NA	NA	NA	6.9	NA	9.4	NA	NA	NA	NA	NA	NA	2.9
Selenium (Dissolved)	ug/L	NA	1.7 J	NA	1.4 U	NA	NA	NA	NA	1.4 U	NA	2.9 U	NA	NA	NA	NA	NA	NA	1.4 U
Silver (Dissolved)	ug/L	NA	0.4 U	NA	0.4 J	NA	NA	NA	NA	0.4 UJ	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	0.4 U
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	0.8 U	NA	NA	NA	NA	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA	1.2
Zinc (Dissolved)	ug/L	NA	7.4	NA	140	NA	NA	NA	NA	8.4	NA	17	NA	NA	NA	NA	NA	NA	11
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.267	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	114.2	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.93	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.8	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.75	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,800	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	87-FP5 06/19/02	87-FP5 04/03/03	87-FP5 06/05/13	88-2 09/20/01	88-7 09/20/01	88-7 06/14/02	88-8 09/20/01	88-8 06/13/02	88-8 04/01/03	88-9 09/20/01	88-9 06/14/02	88-9 04/01/03	94-100 05/31/01	ACSP-B2A 07/16/01	ACSP-B2AR 12/13/02	ACSP-B2B 07/16/01	BD01-02R 12/13/02
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	30 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	NA	1 U	3 U	1 U	3 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1.2	1.6	1 U	1 U	1.3	0.71 J	1.2	0.76 J	1 U	2.2	1	1 [1 U]	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ [1 UJ]	NA	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.85 J	1 U	1 U [1 U]	NA	1 U	1 U	1 U	3.8
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1.1
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	20 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U [25 U]	NA	25 U	25 U	25 U	1.3 J
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	NA	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U [50 U]	NA	1.7 J	50 U	0.35 J	3.8 J
Acetone	ug/L	2.9 J	25 U	30	1.3 J	0.96 J	25 U	1.5 J	25 U	25 U	2.1 J	25 U	25 U [25 U]	NA	5.1 J	1.2 J	25 UJ	1.9 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.61 J	1 U	1 U [1 U]	NA	44	1 U	1 U	87 D
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 UJ	1 U	1 UJ
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 UJ	1 U	1 UJ
cis-1,2-Dichloroethene	ug/L	51 J	25	62	1 U	1 U	1 U	1.3	0.9 J	1 U	88 D	24	1.6 [1.4]	NA	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	40 J	3 U	5 U	3 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	0.5 J	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	NA	0.72 J	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 UJ	10 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	3 U	5 U	3 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	11 J	3 U	1 U	3 U
Methylene Chloride	ug/L	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U [5 U]	NA	5 UJ	5 U	5 UJ	5 U
Naphthalene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	87-FP5 06/19/02	87-FP5 04/03/03	87-FP5 06/05/13	88-2 09/20/01	88-7 09/20/01	88-7 06/14/02	88-8 09/20/01	88-8 06/13/02	88-8 04/01/03	88-9 09/20/01	88-9 06/14/02	88-9 04/01/03	94-100 05/31/01	ACSP-B2A 07/16/01	ACSP-B2AR 12/13/02	ACSP-B2B 07/16/01	BD01-02R 12/13/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	3.9	1 U	0.37 J	1.2
trans-1,2-Dichloroethene	ug/L	1.5	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.6	1	1 U [1 U]	NA	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	11 J	8.9	34	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1	1 U	1 U
Vinyl Chloride	ug/L	1.9	2	5	1 U	1 U	1 U	5.2	3.8	12 J	150 D	100	100 D [100 D]	NA	1 U	1 U	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	4 U	4.2 U	NA	4 U	NA	NA	4.4 U	NA	NA	NA	4 U	NA	4 U	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	10 U	11 U	NA	10 U	NA	NA	11 U	NA	NA	NA	10 U	NA	10 U	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	20 UJ	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 UJ	NA	20 UJ	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2-Chlorophenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2-Methylphenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
2-Nitroaniline	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
2-Nitrophenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
3&4-Methylphenol	ug/L	NA	NA	NA	10 UJ	11 UJ	NA	10 UJ	NA	NA	11 UJ	NA	NA	NA	10 UJ	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	R	NA	NA	NA	20 U	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
4-Chloroaniline	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	R	R	NA	R	NA	NA	R	NA	NA	NA	5 UJ	NA	5 UJ	NA
4-Nitroaniline	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
4-Nitrophenol	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
Acenaphthene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Acenaphthylene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Acetophenone	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Anthracene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Atrazine	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Benzaldehyde	ug/L	NA	NA	NA	5 UJ	5.3 UJ	NA	5 UJ	NA	NA	5.6 UJ	NA	NA	NA	5 U	NA	5 U	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	1 U	1.1 U	NA	1 U	NA	NA	1.1 U	NA	NA	NA	1 U	NA	1 U	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	2 U	2.1 U	NA	2 U	NA	NA	2.2 U	NA	NA	NA	2 U	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2 U	2.1 U	NA	2 U	NA	NA	2.2 U	NA	NA	NA	2 U	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1 U	1.1 U	NA	1 U	NA	NA	1.1 U	NA	NA	NA	1 U	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	1.93 J	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Caprolactam	ug/L	NA	NA	NA	10 U	11 U	NA	10 U	NA	NA	11 U	NA	NA	NA	10 U	NA	10 U	NA
Carbazole	ug/L	NA	NA	NA	10 U	11 U	NA	10 U	NA	NA	11 U	NA	NA	NA	10 U	NA	10 U	NA
Chrysene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2 U	2.1 U	NA	2 U	NA	NA	2.2 U	NA	NA	NA	2 U	NA	2 U	NA
Dibenzofuran	ug/L	NA	NA	NA	4 U	4.2 U	NA	4 U	NA	NA	4.4 U	NA	NA	NA	4 U	NA	4 U	NA
Diethylphthalate	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	1.39 J	NA	NA	NA	1.64 J	NA	1.28 J	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	87-FP5 06/19/02	87-FP5 04/03/03	87-FP5 06/05/13	88-2 09/20/01	88-7 09/20/01	88-7 06/14/02	88-8 09/20/01	88-8 06/13/02	88-8 04/01/03	88-9 09/20/01	88-9 06/14/02	88-9 04/01/03	94-100 05/31/01	ACSP-B2A 07/16/01	ACSP-B2AR 12/13/02	ACSP-B2B 07/16/01	BD01-02R 12/13/02
Dimethylphthalate	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	5 UJ	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Fluoranthene	ug/L	NA	NA	NA	2 U	2.1 U	NA	2 U	NA	NA	2.2 U	NA	NA	NA	2 U	NA	2 U	NA
Fluorene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Hexachlorobenzene	ug/L	NA	NA	NA	1 U	1.1 U	NA	1 U	NA	NA	1.1 U	NA	NA	NA	1 U	NA	1 U	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Hexachloroethane	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2 U	2.1 U	NA	2 U	NA	NA	2.2 U	NA	NA	NA	2 U	NA	2 U	NA
Isophorone	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Methylphenols, Total	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Naphthalene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Nitrobenzene	ug/L	NA	NA	NA	2 U	2.1 U	NA	2 U	NA	NA	2.2 U	NA	NA	NA	2 U	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Pentachlorophenol	ug/L	NA	NA	NA	20 U	21 U	NA	20 U	NA	NA	22 U	NA	NA	NA	20 U	NA	20 U	NA
Phenanthrene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Phenol	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
Pyrene	ug/L	NA	NA	NA	5 U	5.3 U	NA	5 U	NA	NA	5.6 U	NA	NA	NA	5 U	NA	5 U	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.1 U	0.11 U	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	2 U	NA	NA	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	530	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	0.55 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	5 U	5.8	NA	4 J	NA	NA	9.9	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	0.14 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	1,100 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	87-FP5 06/19/02	87-FP5 04/03/03	87-FP5 06/05/13	88-2 09/20/01	88-7 09/20/01	88-7 06/14/02	88-8 09/20/01	88-8 06/13/02	88-8 04/01/03	88-9 09/20/01	88-9 06/14/02	88-9 04/01/03	94-100 05/31/01	ACSP-B2A 07/16/01	ACSP-B2AR 12/13/02	ACSP-B2B 07/16/01	BD01-02R 12/13/02
Nickel	ug/L	NA	NA	NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	5 U	NA	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	0.64 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49 J	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	1.2 U	NA	1.2 U	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	6.4	5.8	NA	39	NA	NA	36	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	890	680	NA	240	NA	NA	250	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	0.6 U	0.75	NA	0.6 U	NA	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	0.31	1.3 J	NA	5.3	NA	NA	8.7	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	4.3	43	NA	12	NA	NA	5.5	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	5 U	4.2 J	NA	4.9 J	NA	NA	8.9	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	74	730	NA	400	NA	NA	77	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	4.4	7.3	NA	16	NA	NA	13	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	1.4 U	6	NA	2.1 J	NA	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	7.7 J	6.3 J	NA	3.1 J	NA	NA	3.2 J	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	0.8 U	NA	0.8 U	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	22	28	NA	26	NA	NA	8.1	NA	NA	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	BD01-02R 04/03/03	BD01-02R 10/05/04	BD01-03 12/05/01	BD01-04 04/24/03	GM-1 11/08/00	GM-1 10/06/04	GM-4 11/08/00	GM-11 11/08/00	GM-11 10/06/04	GM-12 11/08/00	MW-21 03/20/03	MW-22 02/27/02	MW-22 06/25/02	MW-22 03/20/03	MW-23 02/27/02	MW-23 06/25/02	MW-23 03/20/03	MW-23 10/04/04
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 UJ	NA	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	30 U	1 U	1 U	NA	30 U	NA	NA	30 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	2 U	5 U	5 U	NA	2 U	NA	NA	2 U	NA	5 U	5 U	NA	5 U	5 U	NA	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	30 U	25 U	25 U	5 U	30 U	5 U	5 U	30 U	5 U	25 U	25 U	NA	25 U	25 U	NA	25 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	5 U	50 UJ	5 U	5 U	50 U	5 U	50 U	50 U	NA	50 U	50 U	NA	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	1 U	50 U	50 U	5 U	1 U	5 U	5 U	1 U	5 U	50 U	50 U	NA	50 U	50 U	NA	50 U	1 U
Acetone	ug/L	25 U	30 U	25 U	1.8 J	25 U	30 U	25 U	25 U	30 U	25 U	25 U	25 U	NA	25 U	25 U	NA	25 U	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Bromoform	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 UJ
Bromomethane	ug/L	1 U	2 UJ	1 U	1 U	5 U	2 UJ	5 U	5 U	2 UJ	5 U	1 U	1 UJ	NA	1 U	1 UJ	NA	1 U	2 UJ
Carbon Disulfide	ug/L	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	NA	5 UJ	5 U	NA	5 UJ	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Chloroethane	ug/L	1 U	1 UJ	1 U	1 U	5 U	1 UJ	5 U	5 U	1 UJ	5 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 UJ
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 UJ	1 U	NA	1 UJ	1 U	NA	1 UJ	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Cyclohexane	ug/L	5 U	1 U	5 U	5 U	NA	1 U	NA	NA	1 U	NA	5 U	5 UJ	NA	5 U	5 UJ	NA	5 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	1 U	5 U	5 U	NA	1 U	NA	NA	1 U	NA	5 U	5 U	NA	5 U	5 U	NA	5 U	1 U
m&p-Xylene	ug/L	2 U	1 U	2 U	2 U	2 U	1 U	2 U	2 U	1 U	2 U	2 U	2 U	NA	2 U	2 U	NA	2 U	1 U
Methyl acetate	ug/L	5 UJ	10 U	5 U	5 U	NA	10 UJ	NA	NA	10 U	NA	5 U	5 U	NA	5 U	5 U	NA	5 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	7.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	NA	5 U	5 UJ	NA	5 U	5 U
Methylcyclohexane	ug/L	1 U	20 U	1 U	1 U	NA	20 U	NA	NA	20 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	NA	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	BD01-02R 04/03/03	BD01-02R 10/05/04	BD01-03 12/05/01	BD01-04 04/24/03	GM-1 11/08/00	GM-1 10/06/04	GM-4 11/08/00	GM-11 11/08/00	GM-11 10/06/04	GM-12 11/08/00	MW-21 03/20/03	MW-22 02/27/02	MW-22 06/25/02	MW-22 03/20/03	MW-23 02/27/02	MW-23 06/25/02	MW-23 03/20/03	MW-23 10/04/04
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 J	1 U	1 U	NA	1 UJ	NA	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U
SVOC																			
1,1'-Biphenyl	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	0.556 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	4 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	5 U	NA	0.556 U	2 U	0.5 U	0.5 U	2 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	5 U	NA	0.556 U	2 UJ	0.5 U	0.5 U	2 UJ	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	5 U	NA	0.556 U	2 U	0.5 U	0.5 U	2 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	0.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	5 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	1 U	NA	0.222 U	1 U	0.2 U	0.2 U	1 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	2 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	2 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	5 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	5 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	1 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	10 U	NA	NA	10 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	5 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	2 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	4 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	BD01-02R 04/03/03	BD01-02R 10/05/04	BD01-03 12/05/01	BD01-04 04/24/03	GM-1 11/08/00	GM-1 10/06/04	GM-4 11/08/00	GM-11 11/08/00	GM-11 10/06/04	GM-12 11/08/00	MW-21 03/20/03	MW-22 02/27/02	MW-22 06/25/02	MW-22 03/20/03	MW-23 02/27/02	MW-23 06/25/02	MW-23 03/20/03	MW-23 10/04/04
Dimethylphthalate	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	2 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	5 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	1 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	2 U	NA	0.222 U	2 U	0.2 U	0.2 U	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	5 U	NA	0.556 U	2 U	0.5 U	0.5 U	2 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	2 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	20 U	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	5 U	NA	0.222 U	2 UJ	0.2 U	0.2 U	2 UJ	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	5 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	5 U	NA	0.222 U	2 UJ	0.2 U	0.2 U	2 UJ	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.11 U	NA	0.11 U	0.01 U	0.1 U	0.1 U	0.01 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	ug/L	NA	NA	1.2 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	1.2 U	NA	NA	1.2 U	NA	NA
Arsenic	ug/L	NA	NA	2.8 J	NA	NA	32	NA	NA	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	200	NA	NA	34	NA	NA	119	NA	NA	NA	NA	NA	NA	NA	NA	183
Beryllium	ug/L	NA	NA	0.4 U	NA	NA	1 U	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	0.071 J	NA	NA	0.5 U	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	0.68 J	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	0.8	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	3.1	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	3 J	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	0.1 J	NA	NA	3 U	NA	NA	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	140	NA	NA	39	NA	NA	249	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	0.2 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	BD01-02R 04/03/03	BD01-02R 10/05/04	BD01-03 12/05/01	BD01-04 04/24/03	GM-1 11/08/00	GM-1 10/06/04	GM-4 11/08/00	GM-11 11/08/00	GM-11 10/06/04	GM-12 11/08/00	MW-21 03/20/03	MW-22 02/27/02	MW-22 06/25/02	MW-22 03/20/03	MW-23 02/27/02	MW-23 06/25/02	MW-23 03/20/03	MW-23 10/04/04
Nickel	ug/L	NA	NA	5.1	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	3 J	NA	NA	5 U	NA	NA	10	NA	NA	NA	0.73 J	NA	NA	0.7 J	NA	5 U
Silver	ug/L	NA	NA	0.64	NA	NA	0.5 U	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	0.055 J	NA	NA	2 U	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	0.8 U	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	10	NA	NA	5 U	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	144 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	7.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	1 U	NA	7.1	NA	20	9.7	NA	12	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	140	NA	45	NA	52	79	NA	41	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	0.79 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	0.2 U	NA	0.1 U	NA	0.1	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	6.2	NA	1 U	NA	1 U	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	0.89	NA	1 U	NA	1.1	1.1	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	3.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	0.4 U	NA	1 U	NA	1 U	1 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	1.4 U	NA	2.1 U	NA	2.1 U	2.1 U	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	0.4 U	NA	0.21 U	NA	0.21 U	0.21 U	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	14	NA	9.4	NA	11	9.4	NA	5.5	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																			
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	MW-23 10/14/10	MW-24 02/28/02	MW-24 06/26/02	MW-24 03/20/03	MW-25 06/26/02	MW-25 03/21/03	MW-25 10/05/04	MW-25 02/25/05	MW-26 06/26/02	MW-26 03/24/03	MW-26 10/05/04	MW-26 02/28/05	RFI-02-05 09/18/01	RFI-02-05 12/16/02	RFI-02-05 11/09/12	RFI-02-05R 10/27/11	RFI-02-07 09/18/01
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	NA	3.1	1.8	3	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U	NA	1 U	1 UJ	1 U	30 U	NA	1 UJ	1 U	30 U	NA	1 U [1 U]	NA	30 U	30 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	NA	1 U	0.51 J	1 U	1 U	NA	4.5	1.7	6 J	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	NA	5 U	5 U	5 U	2 U	NA	5 U	5 U	2 U	NA	5 U [5 U]	NA	2 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	25 U	NA	25 U	25 U	25 U	30 U	NA	25 U	25 U	30 U	NA	25 U [25 U]	NA	20 U	20 U	25 U
2-Hexanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U	NA	50 U [50 U]	NA	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	1 U	NA	50 U	50 U	1 U	NA	50 U [50 U]	NA	10 U	10 U	50 U
Acetone	ug/L	50 U	25 U	NA	25 U	25 U	25 U	30 U	NA	3.5 J	25 U	30 U	NA	25 U [25 U]	NA	20 U	20 U	25 U
Acrylonitrile	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Bromobenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 UJ	NA	1 U	1 U	1 UJ	NA	1 U [1 U]	NA	1 U	1 U	1 U
Bromomethane	ug/L	5 U	1 UJ	NA	1 U	1 U	1 UJ	2 UJ	NA	1 U	1 UJ	2 UJ	NA	1 U [1 U]	NA	2 U	2 U	1 U
Carbon Disulfide	ug/L	5 U	5 U	NA	5 UJ	5 U	5 UJ	5 UJ	NA	5 U	5 UJ	5 UJ	NA	5 U [5 U]	NA	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Chloroethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 UJ	NA	2.1	1 U	2 J	NA	1 U [1 U]	NA	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Chloromethane	ug/L	5 U	1 U	NA	1 UJ	2.6	1 UJ	1 U	NA	1 U	1 UJ	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	8	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Cyclohexane	ug/L	NA	5 UJ	NA	5 U	5 U	5 U	1 U	NA	34	5.3	2 J	NA	5 U [5 U]	NA	1 U	1 U	5 U
Dibromochloromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Dibromomethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	5 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Diethyl ether	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	0.57 J	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Hexachloroethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	NA	5 U	5 U	5 U	1 U	NA	3.6 J	5 U	1 U	NA	5 U [5 U]	NA	1 U	1 U	5 U
m&p-Xylene	ug/L	2 U	2 U	NA	2 U	2 U	2 U	1 U	NA	2 U	2 U	1 U	NA	2 U [2 U]	NA	2 U	2 U	2 U
Methyl acetate	ug/L	NA	5 U	NA	5 U	5 U	5 UJ	10 U	NA	5 U	5 U	6 J	NA	5 U [5 U]	NA	10 U	10 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 UJ	NA	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U	5 U	5 U
Methylcyclohexane	ug/L	NA	1 U	NA	1 U	1 U	1 U	20 U	NA	120 EJ	10	20 U	NA	1 U [1 U]	NA	20 U	20 U	1 U
Methylene Chloride	ug/L	5 U	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U [5 U]	NA	5 U	5 U	5 U
Naphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA
n-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA
o-Xylene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	MW-23 10/14/10	MW-24 02/28/02	MW-24 06/26/02	MW-24 03/20/03	MW-25 06/26/02	MW-25 03/21/03	MW-25 10/05/04	MW-25 02/25/05	MW-26 06/26/02	MW-26 03/24/03	MW-26 10/05/04	MW-26 02/28/05	RFI-02-05 09/18/01	RFI-02-05 12/16/02	RFI-02-05 11/09/12	RFI-02-05R 10/27/11	RFI-02-07 09/18/01
tert-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Tetrahydrofuran	ug/L	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1.2	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	0.5 J	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U [1 U]	NA	1 U	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.4 U [4.4 U]	NA	NA	NA	4.3 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U [11 U]	NA	NA	NA	11 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 UJ [22 UJ]	NA	NA	NA	22 UJ
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 UJ [11 UJ]	NA	NA	NA	11 UJ
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R [R]	NA	NA	NA	R
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U [1.1 U]	NA	NA	NA	1.1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U [2.2 U]	NA	NA	NA	2.2 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U [2.2 U]	NA	NA	NA	2.2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U [1.1 U]	NA	NA	NA	1.1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U [11 U]	NA	NA	NA	11 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U [11 U]	NA	NA	NA	11 U
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U [2.2 U]	NA	NA	NA	2.2 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.4 U [4.4 U]	NA	NA	NA	4.3 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	MW-23 10/14/10	MW-24 02/28/02	MW-24 06/26/02	MW-24 03/20/03	MW-25 06/26/02	MW-25 03/21/03	MW-25 10/05/04	MW-25 02/25/05	MW-26 06/26/02	MW-26 03/24/03	MW-26 10/05/04	MW-26 02/28/05	RFI-02-05 09/18/01	RFI-02-05 12/16/02	RFI-02-05 11/09/12	RFI-02-05R 10/27/11	RFI-02-07 09/18/01
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U [2.2 U]	NA	NA	NA	2.2 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U [1.1 U]	NA	NA	NA	1.1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U [2.2 U]	NA	NA	NA	2.2 U
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 U [2.2 U]	NA	NA	NA	2.2 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 U [22 U]	NA	NA	NA	22 U
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 U [5.6 U]	NA	NA	NA	5.4 U
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.041 J [0.15]	NA	NA	NA	0.11 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.041 J [0.15]	NA	NA	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 [0.071 J]	NA	NA	NA	0.099 J
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U [0.11 U]	NA	NA	NA	0.11 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U [0.11 U]	NA	NA	NA	0.11 U
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 [0.071 J]	NA	NA	NA	0.099 J
Inorganic																		
Antimony	ug/L	NA	NA	0.59 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U [1.2 U]	1.2 U	NA	NA	1.2 U
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7 U [0.87 J]	1.4	NA	NA	2.4 J
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	330 J [270]	120 J	NA	NA	180 J
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 J [3.2]	0.4 UJ	NA	NA	2.5 J
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.056 J [0.14 J]	0.11 J	NA	NA	0.44 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.98 [1]	5	NA	NA	1.8
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 J [0.45]	0.64 J	NA	NA	4 J
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 J [4.7]	21 J	NA	NA	5.5 J
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7 J [1.6 J]	NA	NA	NA	1.2 J
Lead	ug/L	NA	NA	NA	NA	0.3 J	NA	NA	1 U	NA	NA	NA	4	0.65 J [0.34 J]	2.1 J	NA	NA	0.54 J
Manganese	ug/L	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	1,400 J [1,500]	2,000	NA	NA	3,700 J
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	0.2 U	NA	NA	0.2 U

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	MW-23 10/14/10	MW-24 02/28/02	MW-24 06/26/02	MW-24 03/20/03	MW-25 06/26/02	MW-25 03/21/03	MW-25 10/05/04	MW-25 02/25/05	MW-26 06/26/02	MW-26 03/24/03	MW-26 10/05/04	MW-26 02/28/05	RFI-02-05 09/18/01	RFI-02-05 12/16/02	RFI-02-05 11/09/12	RFI-02-05R 10/27/11	RFI-02-07 09/18/01
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.7 J [5.5]	12 J	NA	NA	27 J
Selenium	ug/L	NA	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U [0.84 J]	2.2 J	NA	NA	1.4 U
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	0.4 UJ	NA	NA	0.4 U
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17 J [0.2 U]	0.12 J	NA	NA	0.2 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U [0.8 U]	0.27 J	NA	NA	0.8 U
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64 J [18]	60 J	NA	NA	13 J
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U [1.2 U]	NA	NA	NA	1.2 U
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	1 U
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	210 [210]	NA	NA	NA	160
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U [0.4 U]	NA	NA	NA	0.4 U
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 [0.7]	NA	NA	NA	0.6 U
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 [0.21]	NA	NA	NA	2.7
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6 U [6.8 J]	NA	NA	NA	5
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.98 J [1.9 J]	NA	NA	NA	1.5 J
Lead (Dissolved)	ug/L	NA	NA	NA	NA	0.4 U	NA	NA	1 U	NA	NA	NA	2	0.4 U [0.4 U]	NA	NA	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	70	NA	NA	NA	NA	NA	NA	NA	880 [880]	NA	NA	NA	2,200
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 [2.3]	NA	NA	NA	16
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U [1.4 U]	NA	NA	NA	2.3 J
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ [0.4 UJ]	NA	NA	NA	0.4 UJ
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U [0.8 U]	NA	NA	NA	0.8 U
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13 [17]	NA	NA	NA	10
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-07 06/27/02	RFI-02-07 03/27/03	RFI-02-08 09/19/01	RFI-02-08R 06/25/02	RFI-02-08R 04/04/05	RFI-02-08R 06/06/13	RFI-02-08R 09/26/13	RFI-02-12 03/26/03	RFI-02-12 10/05/04	RFI-02-12 02/24/05	RFI-02-12 11/01/06	RFI-02-12 10/31/07	RFI-02-12 09/11/08	RFI-02-13 12/19/02	RFI-02-13 10/07/04	RFI-02-19 04/08/05
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	30 U [30 U]	30 U	30 U	30 U	30 U	NA	30 U	30 U
1,1,2-Trichloroethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1-Dichloroethane	ug/L	NA	NA	1.8	2.3	NA	NA	NA	NA	1 U [1 U]	0.6 J	1 U	1 U	1 U	NA	1 U	1 U
1,1-Dichloroethene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	2 U [2 U]	2 U	2 U	2 U	2 U	NA	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 UJ	1 UJ
1,2-Dibromoethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2-Dichlorobenzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2-Dichloroethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2-Dichloropropane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,4-Dichlorobenzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	25 U	25 U	NA	NA	NA	NA	7 J [7 J]	140 J	20 U	20 U	20 U	NA	30 U	30 U
2-Hexanone	ug/L	NA	NA	50 U	50 U	NA	NA	NA	NA	50 U [50 U]	50 U	50 U	50 U	50 UJ	NA	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	50 U	50 U	NA	NA	NA	NA	1 U [1 U]	1 U	10 U	10 U	10 U	NA	1 U	1 U
Acetone	ug/L	NA	NA	25 U	25 U	NA	NA	NA	NA	2,000	47,000 Y	20 U	20 U	20 U	NA	30 U	6 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Bromoform	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	NA	1 UJ	1 UJ
Bromomethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	2 UJ [2 UJ]	R	2 U	2 U	2 U	NA	2 UJ	R
Carbon Disulfide	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	5 UJ [5 UJ]	5 U	5 U	5 U	5 U	NA	5 UJ	5 U
Carbon Tetrachloride	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Chlorobenzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Chloroethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	NA	1 UJ	1 U
Chloroform	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Chloromethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Cyclohexane	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 UJ	1 U	1 UJ	NA	1 U	1 UJ
Dibromochloromethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 UJ]	1 U	1 U	1 U	1 UJ	NA	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
m&p-Xylene	ug/L	NA	NA	2 U	2 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Methyl acetate	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	7 J [7 J]	180	10 U	10 U	10 U	NA	10 UJ	10 U
Methyl tert-butyl ether	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	5 U [5 U]	5 U	5 U	5 U	5 U	NA	5 U	5 UJ
Methylcyclohexane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	20 U [0.2 J]	20 U	20 U	20 U	20 U	NA	20 U	20 U
Methylene Chloride	ug/L	NA	NA	5 U	5 U	NA	NA	NA	NA	5 U [5 U]	5 U	5 U	5 U	5 U	NA	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-07 06/27/02	RFI-02-07 03/27/03	RFI-02-08 09/19/01	RFI-02-08R 06/25/02	RFI-02-08R 04/04/05	RFI-02-08R 06/06/13	RFI-02-08R 09/26/13	RFI-02-12 03/26/03	RFI-02-12 10/05/04	RFI-02-12 02/24/05	RFI-02-12 11/01/06	RFI-02-12 10/31/07	RFI-02-12 09/11/08	RFI-02-13 12/19/02	RFI-02-13 10/07/04	RFI-02-19 04/08/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
trans-1,2-Dichloroethene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Trichlorofluoromethane	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
Vinyl Chloride	ug/L	NA	NA	1 U	1 U	NA	NA	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	4.2 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	11 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	21 U	NA	20 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	21 U	NA	20 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	R	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	21 U	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	1.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	2.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	2.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	1.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	11 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	11 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	2.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	4.2 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-07 06/27/02	RFI-02-07 03/27/03	RFI-02-08 09/19/01	RFI-02-08R 06/25/02	RFI-02-08R 04/04/05	RFI-02-08R 06/06/13	RFI-02-08R 09/26/13	RFI-02-12 03/26/03	RFI-02-12 10/05/04	RFI-02-12 02/24/05	RFI-02-12 11/01/06	RFI-02-12 10/31/07	RFI-02-12 09/11/08	RFI-02-13 12/19/02	RFI-02-13 10/07/04	RFI-02-19 04/08/05
Dimethylphthalate	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	2.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	1.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	2.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	2.1 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	21 U	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	5.3 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	1.2 U	1.2 U	1.2 U	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	1.2 U	NA	NA
Arsenic	ug/L	0.6 J	1 U	36 J	NA	NA	2 U	4	1 U	NA	NA	NA	NA	NA	2.5 J	NA	NA
Barium	ug/L	86	110	62 J	NA	NA	NA	NA	73	NA	NA	NA	NA	NA	16 J	NA	NA
Beryllium	ug/L	0.4 U	0.4 U	0.24 J	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA	NA
Cadmium	ug/L	0.2 U	0.12 J	0.2 U	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.083 J	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	0.54 J	1.6	2.1	NA	NA	NA	NA	0.7	NA	NA	NA	NA	NA	1.2 J	NA	NA
Cobalt	ug/L	0.35	2.4	2 J	NA	NA	NA	NA	0.3	NA	NA	NA	NA	NA	0.58 J	NA	NA
Copper	ug/L	1.9	3.2	3.2 J	NA	NA	NA	NA	1.9	NA	NA	NA	NA	NA	4.4 J	NA	NA
Cyanide (total)	ug/L	5 UJ	5 U	5 U	NA	NA	NA	NA	4.8 J	NA	NA	NA	NA	NA	5 U	NA	NA
Lead	ug/L	0.3 J	0.15 J	0.94 J	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	1.1 J	NA	NA
Manganese	ug/L	450	2,200	260 J	NA	NA	NA	NA	83	NA	NA	NA	NA	NA	380 J	2,250	NA
Mercury	ug/L	0.2 U	0.147 J	0.2 U	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-07 06/27/02	RFI-02-07 03/27/03	RFI-02-08 09/19/01	RFI-02-08R 06/25/02	RFI-02-08R 04/04/05	RFI-02-08R 06/06/13	RFI-02-08R 09/26/13	RFI-02-12 03/26/03	RFI-02-12 10/05/04	RFI-02-12 02/24/05	RFI-02-12 11/01/06	RFI-02-12 10/31/07	RFI-02-12 09/11/08	RFI-02-13 12/19/02	RFI-02-13 10/07/04	RFI-02-19 04/08/05
Nickel	ug/L	2.9	26	9 J	NA	NA	NA	NA	8.4	NA	NA	NA	NA	NA	5.1 J	NA	NA
Selenium	ug/L	1.4 U	1.6 U	1.4 U	NA	NA	NA	NA	1.6 U	NA	NA	NA	NA	NA	1.6 U	NA	NA
Silver	ug/L	0.4 UJ	0.4 U	0.4 U	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 UJ	NA	NA
Thallium	ug/L	0.062 J	0.086 J	0.2 U	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.52 J	NA	NA
Vanadium	ug/L	0.8 U	0.8 U	2.4 J	NA	NA	NA	NA	0.27 J	NA	NA	NA	NA	NA	0.62 J	NA	NA
Zinc	ug/L	17	11	9.1 J	NA	NA	NA	NA	6.6	NA	NA	NA	NA	NA	9.7 J	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	1.2 U	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	1.1 J	NA	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	74	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	3.4	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	0.74	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	3.1	NA	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	5 UJ	NA	1.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	380	NA	190 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	4.2	NA	4.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	1.4 U	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.4 UJ	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	14	NA	6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.727	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	152.5 -	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.14	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.61	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.93	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-20 04/05/05	RFI-02-21 04/05/05	RFI-02-22 04/05/05	RFI-02-22 10/15/10	RFI-02-22 10/25/11	RFI-02-22 11/08/12	RFI-02-24 04/05/05	RFI-02-24 12/08/05	RFI-02-24 06/27/07	RFI-02-24 11/01/07	RFI-02-24 03/18/08	RFI-02-24 06/18/08	RFI-02-24 09/12/08	RFI-02-24 12/04/08	RFI-03-01 09/19/01	RFI-03-02 02/26/02
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	0.57 J	1 UJ
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	NA	30 U	30 U	30 U	30 U [30 U]	30 U	30 U	30 U	30 U	30 U	30 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 J	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1.4	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 UJ	2 U	2 U	2 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 UJ	1 UJ	1 UJ	5 U	1 U	1 U	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 J	30 U	30 U	30 U	20 U	20 U	30 U	30 U [30 U]	20 U	20 U	20 U	20 U	20 U	20 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	1 U	1 U	50 U	10 U	10 U	1 U	1 U [1 U]	10 U	10 U	10 U	10 U	10 U	10 U	0.59 J	50 U
Acetone	ug/L	2,300	8 J	10 J	50 U	20 U	20 U	30 UJ	30 U [30 U]	20 U	20 U	20 U	2 J	20 U	20 UJ	25 U	8 J
Acrylonitrile	ug/L	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	R	R	R	5 U	2 U	2 U	R	2 U [2 U]	2 U	2 U	2 U	2 UJ	2 U	2 U	1 U	1 UJ
Carbon Disulfide	ug/L	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	3.3	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	0.3 J	1 U	1 U	1 U	0.8 J	0.8 J [0.8 J]	1	0.3 J	0.4 J	2	3	0.3 J	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 UJ	1 UJ	1 UJ	NA	1 U	1 U	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 UJ	1 U	5 U	5 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 UJ	1 UJ	5 U	1 U	1 U	1 U	1 U [1 U]	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
m&p-Xylene	ug/L	1 U	1 U	1 U	2 U	2 U	2 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U
Methyl acetate	ug/L	10 J	10 U	10 U	NA	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 UJ	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Methylcyclohexane	ug/L	20 U	20 UJ	20 UJ	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 UJ	20 U	20 U	20 U	1 U	1
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-20 04/05/05	RFI-02-21 04/05/05	RFI-02-22 04/05/05	RFI-02-22 10/15/10	RFI-02-22 10/25/11	RFI-02-22 11/08/12	RFI-02-24 04/05/05	RFI-02-24 12/08/05	RFI-02-24 06/27/07	RFI-02-24 11/01/07	RFI-02-24 03/18/08	RFI-02-24 06/18/08	RFI-02-24 09/12/08	RFI-02-24 12/04/08	RFI-03-01 09/19/01	RFI-03-02 02/26/02
tert-Butylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	0.2 J	0.2 J	1 U	0.58 J	2.6
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	0.76 J
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	0.76 J
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2 U	4 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	10 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.842 J	0.6 J
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	10 UJ
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	5 U
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	0.61 J
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	0.79 J
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	1.26 J
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	2 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	10 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	10 U
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	2 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2 U	4 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	1.23 J

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-20 04/05/05	RFI-02-21 04/05/05	RFI-02-22 04/05/05	RFI-02-22 10/15/10	RFI-02-22 10/25/11	RFI-02-22 11/08/12	RFI-02-24 04/05/05	RFI-02-24 12/08/05	RFI-02-24 06/27/07	RFI-02-24 11/01/07	RFI-02-24 03/18/08	RFI-02-24 06/18/08	RFI-02-24 09/12/08	RFI-02-24 12/04/08	RFI-03-01 09/19/01	RFI-03-02 02/26/02
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	2 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	0.62 J
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	2 U
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	0.75 J
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	0.63 J
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	20 U
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.842 J	5 U
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	5 U
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.1 U
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	7.4
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-02-20 04/05/05	RFI-02-21 04/05/05	RFI-02-22 04/05/05	RFI-02-22 10/15/10	RFI-02-22 10/25/11	RFI-02-22 11/08/12	RFI-02-24 04/05/05	RFI-02-24 12/08/05	RFI-02-24 06/27/07	RFI-02-24 11/01/07	RFI-02-24 03/18/08	RFI-02-24 06/18/08	RFI-02-24 09/12/08	RFI-02-24 12/04/08	RFI-03-01 09/19/01	RFI-03-02 02/26/02
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	3.2 J
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11	11
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180	74 J
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	43 J
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	3.7 J
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	7 J
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.99	3 J
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.5	13 J
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	7.1
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	1 J
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	480 J	110 J
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1	16 J
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	190
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	2.1 J
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	1.9
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4	6.5
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	32 J
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.265	0.5	0.4	0.263	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.9 -	66.5	6.4 -	85.4 -	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.47	NA	7.12	7.35	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	55	65	25	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.39	17.18	20.92	9.26	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22	3.67	5.59	2.17	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	320	450	200	230	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-03-02 06/13/02	RFI-03-03 09/21/01	RFI-03-04 09/21/01	RFI-03-04 06/13/02	RFI-03-04 11/02/07	RFI-03-04 09/23/09	RFI-05-01 09/25/01	RFI-05-01 06/20/02	RFI-05-01 03/31/03	RFI-05-02 09/20/01	RFI-05-02 04/03/03	RFI-05-03 09/25/01	RFI-05-04 09/19/01	RFI-05-04 06/21/02	RFI-05-05 09/19/01
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U [1 U]	1 UJ	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 UJ	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U [1 U]	1 U	1 U	NA	30 U	30 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	0.2	1.1	0.95 J	1 U	1 U [1 U]	NA	1 U	0.86 J	0.84 J	0.92 J
1,1-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U [5 U]	5 U	5 U	NA	2 U	2 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U
1,2-Dibromoethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U [25 U]	25 U	25 U	NA	20 U	20 U	25 U	25 U	25 U	0.59 J [25 U]	NA	25 U	25 U	25 UJ	25 U
2-Hexanone	ug/L	50 U [50 U]	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	NA	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [50 U]	50 U	50 U	NA	10 U	10 U	50 U	50 U	50 U	50 U [50 U]	NA	50 U	50 U	50 U	50 U
Acetone	ug/L	25 U [25 U]	25 U	25 U	NA	20 U	20 U	25 U	25 U	25 U	25 U [25 U]	NA	25 U	25 U	25 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U
Bromomethane	ug/L	1 U [1 U]	1 U	1 U	NA	2 U	2 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Carbon Disulfide	ug/L	5 U [5 U]	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U
Chlorobenzene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	14	7.8	9	1 U [1 U]	NA	1 U	5.7	9	3.7
cis-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U [5 U]	5 U	5 U	NA	1 U	1 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	0.86 J	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U [5 U]	5 U	5 U	NA	1 U	1 U	0.97 J	0.66 J	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U [2 U]	2 U	2 U	NA	1 U	1 U	0.57 J	2 U	2 U	2 U [2 U]	NA	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U [5 U]	5 U	5 U	NA	10 U	10 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U [5 U]	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U [1 U]	1 U	1 U	NA	20 U	20 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U [5 U]	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U

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Location ID: / Date Collected:	Units	RFI-03-02 06/13/02	RFI-03-03 09/21/01	RFI-03-04 09/21/01	RFI-03-04 06/13/02	RFI-03-04 11/02/07	RFI-03-04 09/23/09	RFI-05-01 09/25/01	RFI-05-01 06/20/02	RFI-05-01 03/31/03	RFI-05-02 09/20/01	RFI-05-02 04/03/03	RFI-05-03 09/25/01	RFI-05-04 09/19/01	RFI-05-04 06/21/02	RFI-05-05 09/19/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	0.2	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	0.73 J	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	2.1 [2]	1 U	1 U	NA	1 U	1 U	12	8.1	9.4	1.7 [1.8]	NA	1 U	29	24	22
Trichlorofluoromethane	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U [1 U]	1 U	1 U	NA	1 U	1 U	6	2.2	3.5	1 U [1 U]	NA	1 U	1 U	1 U	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2,4,5-Trichlorophenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2,4,6-Trichlorophenol	ug/L	NA	4.4 U	4 U	NA	NA	NA	4.4 U	NA	NA	4.2 U [4.3 U]	NA	4.4 U	4.2 U	NA	4.2 U
2,4-Dichlorophenol	ug/L	NA	11 U	10 U	NA	NA	NA	11 U	NA	NA	11 U [11 U]	NA	11 U	11 U	NA	11 U
2,4-Dimethylphenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2,4-Dinitrophenol	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 UJ [22 UJ]	NA	22 U	21 U	NA	21 U
2,4-Dinitrotoluene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2,6-Dinitrotoluene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2-Chloronaphthalene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2-Chlorophenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2-Methylnaphthalene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2-Methylphenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
2-Nitroaniline	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
2-Nitrophenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
3&4-Methylphenol	ug/L	NA	11 UJ	10 UJ	NA	NA	NA	11 U	NA	NA	11 U [11 U]	NA	11 U	11 U	NA	11 U
3,3'-Dichlorobenzidine	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
4,6-Dinitro-2-methylphenol	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
4-Bromophenyl-phenylether	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
4-Chloro-3-Methylphenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
4-Chloroaniline	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
4-Chlorophenyl-phenylether	ug/L	NA	R	R	NA	NA	NA	5.6 U	NA	NA	R [R]	NA	5.6 U	R	NA	R
4-Nitroaniline	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
4-Nitrophenol	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
Acenaphthene	ug/L	NA	5.6 U	5 U	NA	NA	NA	12.1	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Acenaphthylene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Acetophenone	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Anthracene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Atrazine	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Benzaldehyde	ug/L	NA	5.6 UJ	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Benzo(a)anthracene	ug/L	NA	1.1 U	1 U	NA	NA	NA	1.1 U	NA	NA	1.1 U [1.1 U]	NA	1.1 U	1.1 U	NA	1.1 U
Benzo(a)pyrene	ug/L	NA	2.2 U	2 U	NA	NA	NA	2.2 U	NA	NA	2.1 U [2.2 U]	NA	2.2 U	2.1 U	NA	2.1 U
Benzo(b)fluoranthene	ug/L	NA	2.2 U	2 U	NA	NA	NA	2.2 U	NA	NA	2.1 U [2.2 U]	NA	2.2 U	2.1 U	NA	2.1 U
Benzo(g,h,i)perylene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Benzo(k)fluoranthene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
bis(2-Chloroethoxy)methane	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
bis(2-Chloroethyl)ether	ug/L	NA	1.1 U	1 U	NA	NA	NA	1.1 U	NA	NA	1.1 U [1.1 U]	NA	1.1 U	1.1 U	NA	1.1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Butylbenzylphthalate	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Caprolactam	ug/L	NA	11 U	10 U	NA	NA	NA	11 U	NA	NA	11 U [11 U]	NA	11 U	11 U	NA	11 U
Carbazole	ug/L	NA	11 U	10 U	NA	NA	NA	11 U	NA	NA	11 U [11 U]	NA	11 U	11 U	NA	11 U
Chrysene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Dibenzo(a,h)anthracene	ug/L	NA	2.2 U	2 U	NA	NA	NA	2.2 U	NA	NA	2.1 U [2.2 U]	NA	2.2 U	2.1 U	NA	2.1 U
Dibenzofuran	ug/L	NA	4.4 U	4 U	NA	NA	NA	2.68 J	NA	NA	4.2 U [4.3 U]	NA	4.4 U	4.2 U	NA	4.2 U
Diethylphthalate	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-03-02 06/13/02	RFI-03-03 09/21/01	RFI-03-04 09/21/01	RFI-03-04 06/13/02	RFI-03-04 11/02/07	RFI-03-04 09/23/09	RFI-05-01 09/25/01	RFI-05-01 06/20/02	RFI-05-01 03/31/03	RFI-05-02 09/20/01	RFI-05-02 04/03/03	RFI-05-03 09/25/01	RFI-05-04 09/19/01	RFI-05-04 06/21/02	RFI-05-05 09/19/01
Dimethylphthalate	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Di-n-Butylphthalate	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Di-n-Octylphthalate	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Fluoranthene	ug/L	NA	2.2 U	2 U	NA	NA	NA	2.2 U	NA	NA	2.1 U [2.2 U]	NA	2.2 U	2.1 U	NA	2.1 U
Fluorene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Hexachlorobenzene	ug/L	NA	1.1 U	1 U	NA	NA	NA	1.1 U	NA	NA	1.1 U [1.1 U]	NA	1.1 U	1.1 U	NA	1.1 U
Hexachlorobutadiene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Hexachlorocyclopentadiene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Hexachloroethane	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	2.2 U	2 U	NA	NA	NA	2.2 U	NA	NA	2.1 U [2.2 U]	NA	2.2 U	2.1 U	NA	2.1 U
Isophorone	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Methylphenols, Total	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Naphthalene	ug/L	NA	5.6 U	5 U	NA	NA	NA	1.41 J	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Nitrobenzene	ug/L	NA	2.2 U	2 U	NA	NA	NA	2.2 U	NA	NA	2.1 U [2.2 U]	NA	2.2 U	2.1 U	NA	2.1 U
N-Nitroso-di-n-propylamine	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
N-Nitrosodiphenylamine	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Pentachlorophenol	ug/L	NA	22 U	20 U	NA	NA	NA	22 U	NA	NA	21 U [22 U]	NA	22 U	21 U	NA	21 U
Phenanthrene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Phenol	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
Pyrene	ug/L	NA	5.6 U	5 U	NA	NA	NA	5.6 U	NA	NA	5.3 U [5.4 U]	NA	5.6 U	5.3 U	NA	5.3 U
PCB																
Aroclor-1016	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1221	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1232	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1242	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1248	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1254	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1260	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Total PCBs (Dissolved)	ug/L	NA	0.11 U	0.1 U	NA	NA	NA	0.1 U	NA	NA	0.11 U [0.11 U]	NA	0.11 U	0.11 U	NA	0.11 U
Inorganic																
Antimony	ug/L	1.2 U [1.2 U]	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA	1.2 U [1.2 U]	NA	NA	NA	NA
Arsenic	ug/L	3.1 [2.6]	NA	NA	12	NA	NA	NA	10	NA	NA	1.1 J [0.85 J]	NA	NA	NA	NA
Barium	ug/L	200 J [210 J]	NA	NA	460 J	NA	NA	NA	120	NA	NA	220 [210]	NA	NA	NA	NA
Beryllium	ug/L	0.4 UJ [0.4 UJ]	NA	NA	0.4 UJ	NA	NA	NA	0.4 U	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA
Cadmium	ug/L	0.09 J [0.09 J]	NA	NA	0.05 J	NA	NA	NA	0.2 U	NA	NA	3.4 [3.2]	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	1.7 [1.2]	NA	NA	0.78	NA	NA	NA	0.71	NA	NA	1.6 [1.4]	NA	NA	NA	NA
Cobalt	ug/L	0.3 [0.3]	NA	NA	1.2	NA	NA	NA	2.6	NA	NA	96 [88]	NA	NA	NA	NA
Copper	ug/L	22 [8.3]	NA	NA	5.7	NA	NA	NA	2.3	NA	NA	10 [8.6]	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	1.8 J	9.8	NA	NA	NA	1.4 J	5 U	NA	2.4 J [1.6 J]	5 U [5 U]	7.9	2.1 J	NA	5 U
Lead	ug/L	1.3 J [1.1 J]	NA	NA	0.4 J	NA	NA	NA	1.7	NA	NA	2.2 [2.1]	NA	NA	NA	NA
Manganese	ug/L	170 [170]	NA	NA	630 J	NA	NA	NA	780	NA	NA	1,900 J [1,800 J]	NA	NA	NA	NA
Mercury	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U	0.2 U	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-03-02 06/13/02	RFI-03-03 09/21/01	RFI-03-04 09/21/01	RFI-03-04 06/13/02	RFI-03-04 11/02/07	RFI-03-04 09/23/09	RFI-05-01 09/25/01	RFI-05-01 06/20/02	RFI-05-01 03/31/03	RFI-05-02 09/20/01	RFI-05-02 04/03/03	RFI-05-03 09/25/01	RFI-05-04 09/19/01	RFI-05-04 06/21/02	RFI-05-05 09/19/01
Nickel	ug/L	3 [2.8]	NA	NA	2.7	NA	NA	NA	33	NA	NA	210 [200]	NA	NA	NA	NA
Selenium	ug/L	0.6 J [1.4 U]	NA	NA	1.4 U	NA	NA	NA	1.4 U	NA	NA	2.3 J [1.9]	NA	NA	NA	NA
Silver	ug/L	0.4 UJ [0.4 UJ]	NA	NA	0.4 UJ	NA	NA	NA	0.4 UJ	NA	NA	0.094 J [0.15 J]	NA	NA	NA	NA
Thallium	ug/L	0.2 U [0.2 U]	NA	NA	0.2 U	NA	NA	NA	0.19 J	NA	NA	0.86 [1.1]	NA	NA	NA	NA
Vanadium	ug/L	0.8 U [0.8 U]	NA	NA	0.8 U	NA	NA	NA	0.8 U	NA	NA	0.8 U [0.8 U]	NA	NA	NA	NA
Zinc	ug/L	11 J [8.9 J]	NA	NA	15 J	NA	NA	NA	13 UJ	NA	NA	35 [35]	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	1.2 U	1.2 U	NA	NA	NA	1.2 U	NA	NA	1.2 U [1.2 U]	NA	2.2	1.2 U	NA	1.2 U
Arsenic (Dissolved)	ug/L	NA	1.7 J	90	NA	NA	NA	18	NA	NA	1 U [1 J]	NA	6.9	1 U	NA	4.7
Barium (Dissolved)	ug/L	NA	55	630	NA	NA	NA	120	NA	NA	190 [200]	NA	120	58	NA	88
Beryllium (Dissolved)	ug/L	NA	0.4 U	0.4 UJ	NA	NA	NA	0.4 U	NA	NA	0.4 U [0.4 U]	NA	0.4 U	0.4 U	NA	0.4 U
Cadmium (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	NA	0.38 [0.39]	NA	0.2 U	0.2 U	NA	0.2 U
Chromium Total (Dissolved)	ug/L	NA	0.6 U	0.6 U	NA	NA	NA	0.6 U	NA	NA	0.6 U [0.76 J]	NA	0.6 U	0.6 U	NA	1.6
Cobalt (Dissolved)	ug/L	NA	0.2 U	1.2	NA	NA	NA	2.3	NA	NA	8.5 [8.8]	NA	2.2	4.4	NA	2
Copper (Dissolved)	ug/L	NA	4.5	2.9 J	NA	NA	NA	7.9	NA	NA	6.6 [9.7]	NA	4.8	2.8	NA	2.9
Cyanide (dissolved)	ug/L	NA	1 J	9.9	NA	NA	NA	1.7 J	NA	NA	2.2 J [1.6 J]	NA	6.5	2.9 J	NA	5 U
Lead (Dissolved)	ug/L	NA	0.4 U	0.4 U	NA	NA	NA	1.1	NA	NA	0.4 U [0.4 U]	NA	0.4 U	0.54	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	210	760	NA	NA	NA	900 J	NA	NA	1,200 J [1,300 J]	NA	630 J	530 J	NA	700 J
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	NA	0.2 U [0.2 U]	NA	0.2 U	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	2.7	6.2	NA	NA	NA	33 J	NA	NA	52 [54]	NA	6.9 J	6.7	NA	15
Selenium (Dissolved)	ug/L	NA	1.4 U	1.4 U	NA	NA	NA	1.6 J	NA	NA	1.4 U [1.5 J]	NA	1.4 U	6.7	NA	1.4 U
Silver (Dissolved)	ug/L	NA	0.4 U	0.4 UJ	NA	NA	NA	0.4 U	NA	NA	0.4 UJ [0.4 UJ]	NA	0.4 U	0.4 UJ	NA	0.4 UJ
Thallium (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	NA	0.87 [0.89]	NA	0.2 U	0.2 U	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	0.8 U	0.8 U	NA	NA	NA	0.8 U	NA	NA	0.8 U [0.8 U]	NA	0.8 U	0.8 U	NA	0.8 U
Zinc (Dissolved)	ug/L	NA	6 U	18	NA	NA	NA	13	NA	NA	8.3 [12]	NA	6.1	6 U	NA	6 U
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	0.39	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	145.9 -	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	7.71	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	69	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	20.09	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	1.98	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	260	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-05 06/21/02	RFI-05-05 04/03/03	RFI-05-06 09/25/01	RFI-05-06 06/20/02	RFI-05-07 09/20/01	RFI-05-08R 06/12/02	RFI-05-08R 03/27/03	RFI-05-10 09/19/01	RFI-05-10 04/02/03	RFI-05-10 10/12/04	RFI-05-12 09/20/01	RFI-05-12 06/14/02	RFI-05-19DR 12/11/01	RFI-05-19DR 12/18/02	RFI-05-19S 09/25/01	RFI-05-19S 06/12/02
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 UJ	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	30 U	1 U	NA	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1.3	1.1	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	2 U	5 U	NA	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 UJ	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 UJ	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1.2	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 UJ	25 U	25 U	25 UJ	25 U	25 U	NA	25 U	NA	30 U	25 U	NA	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	NA	50 U	50 U	NA	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	NA	1 U	50 U	NA	50 U	50 U	50 U	50 U
Acetone	ug/L	25 U	25 U	25 U	25 U	0.69 J	25 U	NA	25 U	NA	190 J	0.87 J	NA	25 U	25 U	25 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 UJ	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	NA	1 UJ	1 U	NA	1 U	1 UJ	1 U	1 U
Bromomethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	2 UJ	1 U	NA	1 U	1 U	1 U	1 U
Carbon Disulfide	ug/L	0.99 J	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 UJ	5 U	NA	5 U	0.55 J	5 U	5 U
Carbon Tetrachloride	ug/L	1 UJ	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 UJ	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	1 U	NA	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	2.5	1.4	1.1	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	0.52 J	1 U	81	46
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	1 U	5 U	NA	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 UJ	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 UJ	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	0.65 J	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	1 U	5 U	NA	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	NA	1 U	2 U	NA	2.5	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	80 J	5 U	NA	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	20 U	1 U	NA	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	0.4 J	5 U	NA	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1.7	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-05 06/21/02	RFI-05-05 04/03/03	RFI-05-06 09/25/01	RFI-05-06 06/20/02	RFI-05-07 09/20/01	RFI-05-08R 06/12/02	RFI-05-08R 03/27/03	RFI-05-10 09/19/01	RFI-05-10 04/02/03	RFI-05-10 10/12/04	RFI-05-12 09/20/01	RFI-05-12 06/14/02	RFI-05-19DR 12/11/01	RFI-05-19DR 12/18/02	RFI-05-19S 09/25/01	RFI-05-19S 06/12/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	0.53 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	0.2 J	1 U	NA	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1.3	0.89 J
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	16	9.9	0.93 J	0.7 J	1 U	1 U	NA	1 U	NA	0.4 J	1 U	NA	4.7	1 U	24	20
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	NA	1 U	1 U	19	16 J
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	4.4 U	NA	4.2 U	4 U	NA	4 U	NA	NA	4.2 U	NA	4.2 U	NA	4.4 U	NA
2,4-Dichlorophenol	ug/L	NA	NA	11 U	NA	11 U	10 U	NA	10 U	NA	NA	11 U	NA	11 U	NA	11 U	NA
2,4-Dimethylphenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2,4-Dinitrophenol	ug/L	NA	NA	22 U	NA	21 UJ	20 U	NA	20 U	NA	NA	21 UJ	NA	21 U	NA	22 U	NA
2,4-Dinitrotoluene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2,6-Dinitrotoluene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2-Chloronaphthalene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2-Chlorophenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2-Methylnaphthalene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2-Methylphenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
2-Nitroaniline	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
2-Nitrophenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
3&4-Methylphenol	ug/L	NA	NA	11 U	NA	11 UJ	10 UJ	NA	10 U	NA	NA	11 UJ	NA	11 UJ	NA	11 U	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
4-Chloroaniline	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	5.5 U	NA	R	5 U	NA	R	NA	NA	R	NA	5.3 U	NA	5.5 U	NA
4-Nitroaniline	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
4-Nitrophenol	ug/L	NA	NA	22 U	NA	21 UJ	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
Acenaphthene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Acenaphthylene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Acetophenone	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Anthracene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Atrazine	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Benzaldehyde	ug/L	NA	NA	5.5 U	NA	5.3 UJ	5 U	NA	5 U	NA	NA	5.3 UJ	NA	5.3 U	NA	5.5 U	NA
Benzo(a)anthracene	ug/L	NA	NA	1.1 U	NA	1.1 U	1 U	NA	1 U	NA	NA	1.1 U	NA	1.1 U	NA	1.1 U	NA
Benzo(a)pyrene	ug/L	NA	NA	2.2 U	NA	2.1 U	2 U	NA	2 U	NA	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA
Benzo(b)fluoranthene	ug/L	NA	NA	2.2 U	NA	2.1 U	2 U	NA	2 U	NA	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Benzo(k)fluoranthene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	1.1 U	NA	1.1 U	1 U	NA	1 U	NA	NA	1.1 U	NA	1.1 U	NA	1.1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Butylbenzylphthalate	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Caprolactam	ug/L	NA	NA	11 U	NA	11 U	10 U	NA	10 U	NA	NA	11 U	NA	11 U	NA	11 U	NA
Carbazole	ug/L	NA	NA	11 U	NA	11 U	10 U	NA	10 U	NA	NA	11 U	NA	11 U	NA	11 U	NA
Chrysene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	2.2 U	NA	2.1 U	2 U	NA	2 U	NA	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA
Dibenzofuran	ug/L	NA	NA	4.4 U	NA	4.2 U	4 U	NA	4 U	NA	NA	4.2 U	NA	4.2 U	NA	4.4 U	NA
Diethylphthalate	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	2.77 J	NA	5.5 U	NA

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Dimethylphthalate	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Di-n-Butylphthalate	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Di-n-Octylphthalate	ug/L	NA	NA	5.5 U	NA	5.3 UJ	5 U	NA	5 U	NA	NA	5.3 UJ	NA	5.3 U	NA	5.5 U	NA
Fluoranthene	ug/L	NA	NA	2.2 U	NA	2.1 U	2 U	NA	2 U	NA	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA
Fluorene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Hexachlorobenzene	ug/L	NA	NA	1.1 U	NA	1.1 U	1 U	NA	1 U	NA	NA	1.1 U	NA	1.1 U	NA	1.1 U	NA
Hexachlorobutadiene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Hexachloroethane	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	2.2 U	NA	2.1 U	2 U	NA	2 U	NA	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA
Isophorone	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Methylphenols, Total	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Naphthalene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Nitrobenzene	ug/L	NA	NA	2.2 U	NA	2.1 U	2 U	NA	2 U	NA	NA	2.1 U	NA	2.1 U	NA	2.2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Pentachlorophenol	ug/L	NA	NA	22 U	NA	21 U	20 U	NA	20 U	NA	NA	21 U	NA	21 U	NA	22 U	NA
Phenanthrene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Phenol	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
Pyrene	ug/L	NA	NA	5.5 U	NA	5.3 U	5 U	NA	5 U	NA	NA	5.3 U	NA	5.3 U	NA	5.5 U	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1221	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1232	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1242	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1248	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1254	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1260	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.11 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.11 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Total PCBs (Dissolved)	ug/L	NA	NA	0.11 U	NA	0.11 U	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	NA	0.11 U	NA
Inorganic																	
Antimony	ug/L	NA	1.2 U	NA	NA	NA	1.2 U	1.2 U	NA	1.2 U	NA	NA	1.2 U	1.2 U	0.58 J	NA	1.2 U
Arsenic	ug/L	NA	4	NA	NA	NA	1 U	1.7	NA	0.85 J	NA	NA	46	7.2	17 J	NA	1 U
Barium	ug/L	NA	110	NA	NA	NA	210 J	250	NA	220	NA	NA	270	280	490 J	NA	100 J
Beryllium	ug/L	NA	0.4 U	NA	NA	NA	0.4 UJ	0.4 U	NA	0.4 U	NA	NA	0.4 UJ	1.2 J	0.4 U	NA	0.4 UJ
Cadmium	ug/L	NA	0.12 J	NA	NA	NA	0.16 J	0.21	NA	3.1	NA	NA	0.13 J	0.28	0.17 J	NA	0.29
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	0.48 J	NA	NA	NA	0.77	1.2	NA	1.5	NA	NA	1	1.7	0.76 J	NA	0.91
Cobalt	ug/L	NA	3.1	NA	NA	NA	1.3	1.2	NA	99	NA	NA	3	6.1	3.7 J	NA	9.8
Copper	ug/L	NA	3.9	NA	NA	NA	4.1	2.2	NA	7.8	NA	NA	6.8	0.97	2 J	NA	3.9
Cyanide (total)	ug/L	NA	5 U	2.6 J	NA	0.95 J	NA	5 U	1.6 J	2.4 J	NA	1.7 J	NA	5 U	5 U	1.2 J	NA
Lead	ug/L	NA	2.5	NA	NA	NA	0.49	0.88	NA	1.7	NA	NA	1.3	0.47 U	0.19 J	NA	0.13 J
Manganese	ug/L	NA	760 J	NA	NA	NA	910 J	470	NA	1,900 J	NA	NA	390 J	1,100	880	NA	2,700 J
Mercury	ug/L	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-05 06/21/02	RFI-05-05 04/03/03	RFI-05-06 09/25/01	RFI-05-06 06/20/02	RFI-05-07 09/20/01	RFI-05-08R 06/12/02	RFI-05-08R 03/27/03	RFI-05-10 09/19/01	RFI-05-10 04/02/03	RFI-05-10 10/12/04	RFI-05-12 09/20/01	RFI-05-12 06/14/02	RFI-05-19DR 12/11/01	RFI-05-19DR 12/18/02	RFI-05-19S 09/25/01	RFI-05-19S 06/12/02
Nickel	ug/L	NA	12	NA	NA	NA	5.8 J	13	NA	220	15	NA	20	21	11 J	NA	26
Selenium	ug/L	NA	1.6 U	NA	NA	NA	1.2 J	1.6 UJ	NA	4.1	NA	NA	1.4 U	1.4 U	1.6 U	NA	1.4 U
Silver	ug/L	NA	0.4 UJ	NA	NA	NA	0.15 J	0.4 U	NA	0.4 U	NA	NA	0.4 U	0.17 J	0.59 J	NA	0.4 UJ
Thallium	ug/L	NA	0.27	NA	NA	NA	0.59	0.072 J	NA	0.63	NA	NA	0.2 U	1.2	0.28 J	NA	0.72
Vanadium	ug/L	NA	0.8 U	NA	NA	NA	0.44 J	0.8 U	NA	0.8 U	NA	NA	0.8 U	0.8 U	0.8 U	NA	0.8 U
Zinc	ug/L	NA	11	NA	NA	NA	11 J	14	NA	34	NA	NA	12	14	17 J	NA	6.5 J
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	1.2 U	NA	1.2 U	1.2 U	NA	1.2 U	NA	NA	1.2 U	NA	1.2 U	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	NA	NA	24	NA	1 U	1.6	NA	23	NA	NA	70	NA	5.9	NA	1.8 J	NA
Barium (Dissolved)	ug/L	NA	NA	460	NA	88	180	NA	180	NA	NA	160	NA	270	NA	79	NA
Beryllium (Dissolved)	ug/L	NA	NA	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	NA	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	0.31	NA
Chromium Total (Dissolved)	ug/L	NA	NA	0.67	NA	0.6 U	1.5	NA	0.6 U	NA	NA	0.6 U	NA	1.9	NA	0.86	NA
Cobalt (Dissolved)	ug/L	NA	NA	3	NA	0.8	0.94	NA	3.2	NA	NA	2.4	NA	5	NA	8.5	NA
Copper (Dissolved)	ug/L	NA	NA	1.6	NA	5.6	9.3 U	NA	13	NA	NA	3.7	NA	2	NA	4.3	NA
Cyanide (dissolved)	ug/L	NA	NA	2.3 J	NA	1.2 J	NA	NA	2.1 J	NA	NA	1.7 J	NA	5 U	NA	1.8 J	NA
Lead (Dissolved)	ug/L	NA	NA	0.4 U	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	NA	240 J	NA	270	770 J	NA	860 J	NA	NA	290	NA	970	NA	1,000 J	NA
Mercury (Dissolved)	ug/L	NA	NA	0.2 U	NA	0.2 U	0.133 J	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	NA	13 J	NA	4.5	5	NA	7.8	NA	NA	20	NA	19	NA	23 J	NA
Selenium (Dissolved)	ug/L	NA	NA	1.4 U	NA	1.8 J	1.7 J	NA	2.5 J	NA	NA	1.4 U	NA	1.7	NA	1.4 U	NA
Silver (Dissolved)	ug/L	NA	NA	0.4 U	NA	0.61 UJ	0.4 UJ	NA	0.4 UJ	NA	NA	2.8 J	NA	1.4 U	NA	0.4 U	NA
Thallium (Dissolved)	ug/L	NA	NA	0.3	NA	0.2 U	0.2 U	NA	0.23	NA	NA	0.2 U	NA	0.2 U	NA	0.42	NA
Vanadium (Dissolved)	ug/L	NA	NA	0.8 U	NA	0.8 U	0.8 U	NA	0.8 U	NA	NA	0.8 U	NA	0.8 U	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	NA	NA	13	NA	6 U	14 J	NA	11	NA	NA	6 U	NA	9.5	NA	6.8	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-19S 03/28/03	RFI-05-20 09/25/01	RFI-05-20 06/12/02	RFI-05-20 04/03/03	RFI-05-21 09/25/01	RFI-05-21 03/27/03	RFI-05-30 02/19/02	RFI-05-30 06/12/02	RFI-05-30 10/04/04	RFI-07-01R 09/15/03	RFI-07-03 09/25/01	RFI-07-08 09/20/01	RFI-07-08 06/20/02	RFI-07-08 10/06/04	RFI-09-01 09/14/01	RFI-09-01 06/24/02
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1.5]	NA	1	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 UJ [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	30 U	1 U	1 U	1 U [1 U]	NA	30 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	2 U	5 U	5 U	5 U [5 U]	NA	2 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	0.57 J	0.69 J	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ
1,2-Dichloropropane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U [25 U]	25 U	25 U	25 U	25 U [25 U]	NA	25 U	25 U	30 U	25 U	25 U	25 U [25 U]	NA	30 U	25 U	1.1 J
2-Hexanone	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U [50 U]	NA	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	NA	50 UJ	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U [50 U]	NA	50 U	50 U	1 U	50 U	50 U	50 U [50 U]	NA	1 U	50 U	50 U
Acetone	ug/L	25 U [25 U]	25 U	25 U	25 U	25 U [25 U]	NA	25 U	25 U	30 U	25 U	25 U	0.59 J [25 U]	NA	30 U	25 U	2.4 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	0.2 J	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Bromoform	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U	1 U	1 U [1 U]	NA	1 UJ	1 U	1 U
Bromomethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	2 UJ	1 U	1 U	1 U [1 UJ]	NA	2 UJ	1 U	1 U
Carbon Disulfide	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Chloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 UJ	1 U	1 U	1 U [1 U]	NA	1 UJ	1 U	1 U
Chloroform	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Chloromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	34 [32]	1.5	1.7	1.3	1.2 [0.66 J]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1.4	1.2
cis-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Cyclohexane	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	1 U	5 U	5 U	5 U [5 U]	NA	1 U	5 U	5 U
Dibromochloromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	1 U	5 U	5 U	5 U [5 U]	NA	1 U	5 U	5 U
m&p-Xylene	ug/L	2 U [2 U]	2 U	2 U	2 U	2 U [2 U]	NA	2 U	2 U	1 U	2 U	2 U	0.64 J [0.7 J]	NA	1 U	2 U	2 U
Methyl acetate	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	10 U	5 U	5 U	5 U [5 U]	NA	10 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	20 U	1 U	1 U	1 U [1 U]	NA	20 U	1 U	1 U
Methylene Chloride	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	NA	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-19S 03/28/03	RFI-05-20 09/25/01	RFI-05-20 06/12/02	RFI-05-20 04/03/03	RFI-05-21 09/25/01	RFI-05-21 03/27/03	RFI-05-30 02/19/02	RFI-05-30 06/12/02	RFI-05-30 10/04/04	RFI-07-01R 09/15/03	RFI-07-03 09/25/01	RFI-07-08 09/20/01	RFI-07-08 06/20/02	RFI-07-08 10/06/04	RFI-09-01 09/14/01	RFI-09-01 06/24/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U [1 U]	0.64 J	0.53 J	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	0.5 J	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [0.56 J]	NA	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	21 [21]	230 D	140 D	170 D	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1.5	1.3
Trichlorofluoromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U
Vinyl Chloride	ug/L	7.4 [7]	1 U	1 U	1 U	1 U [1 U]	NA	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	NA	1 U	3.8	2.2
SVOC																	
1,1'-Biphenyl	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	4.3 U	NA	NA	4 U [4 U]	NA	NA	NA	NA	NA	4.4 U	4 U [4.4 U]	NA	NA	4 U	NA
2,4-Dichlorophenol	ug/L	NA	11 U	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 U	10 U [11 U]	NA	NA	10 U	NA
2,4-Dimethylphenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2,4-Dinitrophenol	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2-Chloronaphthalene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2-Chlorophenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2-Methylnaphthalene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2-Methylphenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
2-Nitroaniline	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
2-Nitrophenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
3&4-Methylphenol	ug/L	NA	11 U	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 UJ	10 UJ [11 UJ]	NA	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
4-Chloroaniline	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	R [R]	NA	NA	R	NA
4-Nitroaniline	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 UJ	20 U [22 U]	NA	NA	20 U	NA
4-Nitrophenol	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
Acenaphthene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Acenaphthylene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Acetophenone	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Anthracene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Atrazine	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Benzaldehyde	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Benzo(a)anthracene	ug/L	NA	1.1 U	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	1.1 U	1 U [1.1 U]	NA	NA	1 U	NA
Benzo(a)pyrene	ug/L	NA	2.2 U	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	2 U [2.2 U]	NA	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	NA	2.2 U	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	2 U [2.2 U]	NA	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	1.1 U	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	1.1 U	1 U [1.1 U]	NA	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Butylbenzylphthalate	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Caprolactam	ug/L	NA	11 U	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 U	10 U [11 U]	NA	NA	10 U	NA
Carbazole	ug/L	NA	11 U	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 U	10 U [11 U]	NA	NA	10 U	NA
Chrysene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	2.2 U	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	2 U [2.2 U]	NA	NA	2 U	NA
Dibenzofuran	ug/L	NA	4.3 U	NA	NA	4 U [4 U]	NA	NA	NA	NA	NA	4.4 U	4 U [4.4 U]	NA	NA	4 U	NA
Diethylphthalate	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-19S 03/28/03	RFI-05-20 09/25/01	RFI-05-20 06/12/02	RFI-05-20 04/03/03	RFI-05-21 09/25/01	RFI-05-21 03/27/03	RFI-05-30 02/19/02	RFI-05-30 06/12/02	RFI-05-30 10/04/04	RFI-07-01R 09/15/03	RFI-07-03 09/25/01	RFI-07-08 09/20/01	RFI-07-08 06/20/02	RFI-07-08 10/06/04	RFI-09-01 09/14/01	RFI-09-01 06/24/02
Dimethylphthalate	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Di-n-Butylphthalate	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Di-n-Octylphthalate	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Fluoranthene	ug/L	NA	2.2 U	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	2 U [2.2 U]	NA	NA	2 U	NA
Fluorene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Hexachlorobenzene	ug/L	NA	1.1 U	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	1.1 U	1 U [1.1 U]	NA	NA	1 U	NA
Hexachlorobutadiene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Hexachloroethane	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2.2 U	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	2 U [2.2 U]	NA	NA	2 U	NA
Isophorone	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Methylphenols, Total	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Naphthalene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Nitrobenzene	ug/L	NA	2.2 U	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	2 U [2.2 U]	NA	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Pentachlorophenol	ug/L	NA	22 U	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	20 U [22 U]	NA	NA	20 U	NA
Phenanthrene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Phenol	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
Pyrene	ug/L	NA	5.4 U	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	5 U [5.6 U]	NA	NA	5 U	NA
PCB																	
Aroclor-1016	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1221	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1232	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1242	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1248	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 J]	NA	NA	0.1 U	NA
Aroclor-1254	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.14]	NA	NA	0.1 U	NA
Aroclor-1260	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.24 J]	NA	NA	0.1 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.17 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.06 J	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	NA	0.1 U	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	0.1 U	0.1 U [0.1 U]	NA	NA	0.06 J	NA
Inorganic																	
Antimony	ug/L	1.2 U	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	1.2 U [1.2 U]	1.2 U	NA	NA	NA
Arsenic	ug/L	1 U	NA	NA	NA	NA	35	NA	NA	NA	NA	NA	2.8 J [3.6 J]	1.1	NA	NA	NA
Barium	ug/L	91	NA	NA	NA	NA	430	NA	NA	NA	NA	NA	150 J [130]	76	NA	NA	NA
Beryllium	ug/L	0.4 U	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	1.3 J [16]	0.4 U	1 U	NA	NA
Cadmium	ug/L	0.24	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.12 J [0.82 J]	0.2 U	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	1.2	NA	NA	NA	NA	1.3	NA	NA	NA	NA	NA	0.98 J [2.2 J]	0.56 J	NA	NA	NA
Cobalt	ug/L	11	NA	NA	NA	NA	2.9	NA	NA	NA	NA	NA	1.6 J [2.3]	0.29	NA	NA	NA
Copper	ug/L	3.9	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	2.6 J [5.9]	4	NA	NA	NA
Cyanide (total)	ug/L	5 U	1.8 J	NA	NA	1.6 J [1.4 J]	5 U	NA	NA	NA	NA	5 U	1.4 J [1.8 J]	5 U	NA	NA	NA
Lead	ug/L	0.22 J	NA	NA	NA	NA	0.16 J	NA	NA	NA	NA	NA	0.32 J [0.49 J]	0.3 J	NA	NA	NA
Manganese	ug/L	1,000	NA	NA	NA	NA	540	NA	NA	1,110	NA	NA	530 J [740]	23	NA	NA	NA
Mercury	ug/L	0.2 U	0.2 U	NA	NA	0.2 U [0.2 U]	0.291	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-05-19S 03/28/03	RFI-05-20 09/25/01	RFI-05-20 06/12/02	RFI-05-20 04/03/03	RFI-05-21 09/25/01	RFI-05-21 03/27/03	RFI-05-30 02/19/02	RFI-05-30 06/12/02	RFI-05-30 10/04/04	RFI-07-01R 09/15/03	RFI-07-03 09/25/01	RFI-07-08 09/20/01	RFI-07-08 06/20/02	RFI-07-08 10/06/04	RFI-09-01 09/14/01	RFI-09-01 06/24/02
Nickel	ug/L	34	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	15 J [17]	6.3	NA	NA	NA
Selenium	ug/L	1.6 U	NA	NA	NA	NA	1.6 U	NA	NA	NA	NA	NA	16 J [16]	12	NA	NA	NA
Silver	ug/L	0.4 U	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U [0.4 U]	0.4 UJ	NA	NA	NA
Thallium	ug/L	0.3	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.27 U [0.45 U]	0.23	NA	NA	NA
Vanadium	ug/L	0.8 U	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	0.8 U [0.8 U]	0.8 U	NA	NA	NA
Zinc	ug/L	28	NA	NA	NA	NA	18	NA	NA	NA	NA	NA	13 J [17]	20 UJ	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	1.2 U [1.2 U]	NA	NA	NA	NA	NA	2.8	1.2 U [1.2 U]	1.2 U	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	NA	2.4 J	NA	NA	46 [47]	NA	NA	NA	NA	NA	1.1 J	1.4 [1 J]	1 U	NA	9.8	NA
Barium (Dissolved)	ug/L	NA	84	NA	NA	240 [240]	NA	NA	NA	NA	NA	34	96 [100 J]	63	NA	80	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	0.4 U	0.4 U [0.4 U]	0.4 U	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	0.52	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	0.3	0.2 U [0.2 U]	0.2 U	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	0.6 U	NA	NA	0.6 U [0.64]	NA	NA	NA	NA	NA	0.66	0.6 U [0.6 U]	2	NA	0.7 U	NA
Cobalt (Dissolved)	ug/L	NA	5.1	NA	NA	2.7 [2.8]	NA	NA	NA	NA	NA	1	1.1 [1.6]	0.2 U	NA	0.72	NA
Copper (Dissolved)	ug/L	NA	8.2	NA	NA	1.7 [28]	NA	NA	NA	NA	NA	11	3.3 [8]	2	NA	5.4 U	NA
Cyanide (dissolved)	ug/L	NA	2.8 J	NA	NA	1.3 J [1.5 J]	NA	NA	NA	NA	NA	1.1 J	1.6 J [1.6 J]	5 U	NA	4.4 J	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	0.62	0.4 U [0.4 U]	0.4 U	NA	1.4	NA
Manganese (Dissolved)	ug/L	NA	590 J	NA	NA	360 J [350 J]	NA	NA	NA	NA	NA	140 J	310 [330]	13	NA	64	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	8.1 J	NA	NA	7.6 J [7.5 J]	NA	NA	NA	NA	NA	20	8 [8.4]	5.3	NA	2.8 U	NA
Selenium (Dissolved)	ug/L	NA	1.4 U	NA	NA	1.8 J [1.4 U]	NA	NA	NA	NA	NA	11	14 [13]	11	NA	11	NA
Silver (Dissolved)	ug/L	NA	0.4 U	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	0.4 U	0.4 UJ [0.4 UJ]	0.4 UJ	NA	0.4 U	NA
Thallium (Dissolved)	ug/L	NA	0.23	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	0.8 U [0.8 U]	NA	NA	NA	NA	NA	0.8 U	0.8 U [0.8 U]	0.8 U	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	NA	7.9	NA	NA	16 [13]	NA	NA	NA	NA	NA	130 J	6 U [6 U]	11 J	NA	10 U	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-01R 03/24/03	RFI-09-04 11/28/01	RFI-09-04R 06/24/02	RFI-09-04R 03/24/03	RFI-09-04R 10/05/04	RFI-09-04R 06/08/05	RFI-09-04R 11/01/06	RFI-09-04R 11/14/07	RFI-09-04R 09/12/08	RFI-09-04R 10/18/10	RFI-09-04R 10/20/11	RFI-09-04R 11/08/12	RFI-09-06 06/21/02	RFI-09-07 06/21/02	RFI-09-07 10/05/04
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1.6 [1.7]	1 U	1 U	0.3 J	0.3 J	0.6 J	0.6 J	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	30 U	30 U	30 U	30 U	30 U	NA	30 U	30 U	NA	1 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U [5 U]	5 U	5 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	NA	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	NA	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U [25 U]	25 UJ	25 U	30 U	30 U	20 U	20 U	20 U	30 U	20 U	20 U	25 UJ	6 J	30 U
2-Hexanone	ug/L	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U [50 U]	50 U	50 U	1 U	1 U	10 U	10 U	10 U	50 U	10 U	10 U	50 U	50 U	1 U
Acetone	ug/L	25 U	25 U [25 U]	25 U	25 U	30 U	30 U	20 U	20 U	20 U	50 U	20 U	20 U	25 U	25 U	6 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	12	52 J	7
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U [1 U]	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ
Bromomethane	ug/L	1 UJ	1 U [1 U]	1 U	1 UJ	2 UJ	2 U	2 U	2 U	2 U	5 U	2 U	2 U	1 U	1 U	2 UJ
Carbon Disulfide	ug/L	5 UJ	5 U [5 U]	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Carbon Tetrachloride	ug/L	1 U	1 U [1 U]	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 UJ
Chloroform	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 UJ	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 UJ
cis-1,2-Dichloroethene	ug/L	1 U	1.1 [1.2]	0.98 J	1 U	2	1	2	1	1	1	1	1	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U [5 U]	5 U	5 U	1 U	1 U	1 UJ	1 U	1 UJ	NA	1 U	1 U	21	230 JD	175
Dibromochloromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 UJ	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	5 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.5	62 J	18
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U [5 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1.2 J	24 J	11 J
m&p-Xylene	ug/L	2 U	2 U [2 U]	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	16	62 J	13 J
Methyl acetate	ug/L	5 U	5 U [5 U]	5 U	5 U	10 UJ	10 U	10 U	10 U	10 U	NA	10 U	10 U	5 U	5 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U [1 U]	1 U	1 U	20 U	20 U	20 U	20 U	20 U	NA	20 U	20 U	12	140 JD	190
Methylene Chloride	ug/L	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA
o-Xylene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.2	9.9 J	2 J
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-01R 03/24/03	RFI-09-04 11/28/01	RFI-09-04R 06/24/02	RFI-09-04R 03/24/03	RFI-09-04R 10/05/04	RFI-09-04R 06/08/05	RFI-09-04R 11/01/06	RFI-09-04R 11/14/07	RFI-09-04R 09/12/08	RFI-09-04R 10/18/10	RFI-09-04R 10/20/11	RFI-09-04R 11/08/12	RFI-09-06 06/21/02	RFI-09-07 06/21/02	RFI-09-07 10/05/04
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.4	6.5 J	0.9 J
trans-1,2-Dichloroethene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.5	9.3 [9.3]	6.7	5.5	11	9	12	10	9	8	10	10	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	14 [13]	4	9.6	5	5 J	4	3	3	6	5	3	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U [4.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
2,4-Dichlorophenol	ug/L	NA	10 U [11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
2,4-Dimethylphenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,4-Dinitrophenol	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
2,4-Dinitrotoluene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Chloronaphthalene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Chlorophenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 UJ	NA
2-Methylnaphthalene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Methylphenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
2-Nitroaniline	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
2-Nitrophenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
3&4-Methylphenol	ug/L	NA	10 UJ [11 UJ]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	R [R]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Chloroaniline	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4-Chlorophenyl-phenylether	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Nitroaniline	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
4-Nitrophenol	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.15 J	NA
Acenaphthene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Acenaphthylene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Acetophenone	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Anthracene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Atrazine	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Benzaldehyde	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 UJ	NA
Benzo(a)anthracene	ug/L	NA	1 U [1.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Benzo(a)pyrene	ug/L	NA	2 U [2.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Benzo(b)fluoranthene	ug/L	NA	2 U [2.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Benzo(k)fluoranthene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U [1.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Butylbenzylphthalate	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Caprolactam	ug/L	NA	10 U [11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Carbazole	ug/L	NA	10 U [11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Chrysene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U [2.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Dibenzofuran	ug/L	NA	4 U [4.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
Diethylphthalate	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA

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Dimethylphthalate	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Di-n-Butylphthalate	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Di-n-Octylphthalate	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Fluoranthene	ug/L	NA	2 U [2.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Fluorene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Hexachlorobenzene	ug/L	NA	1 U [1.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Hexachlorobutadiene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Hexachloroethane	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U [2.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Isophorone	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Methylphenols, Total	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Naphthalene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Nitrobenzene	ug/L	NA	2 U [2.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Pentachlorophenol	ug/L	NA	20 U [21 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA
Phenanthrene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Phenol	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Pyrene	ug/L	NA	5 U [5.3 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
PCB																
Aroclor-1016	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1221	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1232	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1242	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1248	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1254	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1260	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.11 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	NA	0.11 U [0.11 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
Inorganic																
Antimony	ug/L	NA	1.2 U [1.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.58 J	NA
Arsenic	ug/L	NA	1 U [0.5 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	NA
Barium	ug/L	NA	77 [84]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190	NA
Beryllium	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	NA	0.28 [0.087 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.055 J	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	0.77 U [0.6 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	NA
Cobalt	ug/L	NA	0.65 [0.72]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24	NA
Copper	ug/L	NA	2.6 U [2.5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	NA
Cyanide (total)	ug/L	NA	3 J [2.6 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Lead	ug/L	NA	0.4 U [0.4 U]	NA	NA	3 U	NA	NA	NA	NA	NA	NA	NA	NA	0.96	NA
Manganese	ug/L	NA	22 [22]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44	NA
Mercury	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA

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Nickel	ug/L	NA	4 [4.3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.7	NA
Selenium	ug/L	NA	3 J [2.8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.87 J	NA
Silver	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA
Thallium	ug/L	NA	0.2 U [0.26]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 J	NA
Vanadium	ug/L	NA	0.8 U [0.8 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	NA
Zinc	ug/L	NA	22 U [9.9 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15 UJ	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	1.2 U [1.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6	NA
Barium (Dissolved)	ug/L	NA	81 [84]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	17 [16]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7	NA
Cobalt (Dissolved)	ug/L	NA	0.77 [0.76]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Copper (Dissolved)	ug/L	NA	0.6 U [5.8 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7	NA
Cyanide (dissolved)	ug/L	NA	2.1 J [2.6 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Lead (Dissolved)	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	23 [23]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	NA
Mercury (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.136 J	NA
Nickel (Dissolved)	ug/L	NA	5.4 [5.4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	NA
Selenium (Dissolved)	ug/L	NA	4 J [4.8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA
Silver (Dissolved)	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA
Thallium (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	4.2 [4.3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6	NA
Zinc (Dissolved)	ug/L	NA	6 U [30 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6 UJ	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	0.952	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	67.5	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	7	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	65	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	19.63	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	0.21	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3,440	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-08 09/14/01	RFI-09-08 06/21/02	RFI-09-08 03/21/03	RFI-09-08 06/06/13	RFI-09-08 09/19/13	RFI-09-08D 04/07/05	RFI-09-08 03/21/03	RFI-09-09 09/25/09	RFI-09-09D 04/07/05	RFI-09-10 09/13/01	RFI-09-08D 04/07/05	RFI-09-09 09/17/01	RFI-09-09 06/21/02	RFI-09-09 03/21/03	RFI-09-09 09/25/09	RFI-09-10 09/13/01
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	30 U	30 U	30 U	NA	NA	30 U	1 U	NA	1 U	1 U	1 U	30 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 US	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	2 U	2 U	2 U	NA	NA	2 U	5 U	NA	5 U	5 U	5 U	2 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 UJ	NA	NA	1 UJ	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 US	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 US	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	0.2	1 U	1 U	0.3 J	1 U	1 U	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	14 J	25 UJ	NA	20 U	20 U	NA	25 U	20 U	30 U	25 U	30 U	1.6 J	25 U	25 U	NA	NA
2-Hexanone	ug/L	50 U	50 U	NA	50 U	50 US	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	10 U	10 US	NA	50 U	10 U	1 U	50 U	1 U	50 U	50 U	50 U	NA	NA
Acetone	ug/L	39 U	25 U	NA	20 U	20 U	NA	25 U	3	30 UJ	25 U	20 J	6.6 J	25 U	25 U	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	270 D	8.9	NA	1 U	1 US	NA	200 D	1 U	0.4 J	1 U	94	1 U	1 U	1 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	NA	1 U	1 US	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Bromoform	ug/L	1 U	1 UJ	NA	1 U	1 U	NA	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	NA	NA
Bromomethane	ug/L	1 U	1 U	NA	2 U	2 U	NA	1 UJ	2 U	R	1 U	R	1 U	1 U	1 UJ	NA	NA
Carbon Disulfide	ug/L	5 U	5 U	NA	5 U	5 U	NA	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	NA	NA
Carbon Tetrachloride	ug/L	1 U	1 UJ	NA	1 U	1 US	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chloroethane	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chloroform	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chloromethane	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 UJ	0.9	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 US	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Cyclohexane	ug/L	97 D	5 U	NA	1 U	3	NA	70	1 U	12 J	5 U	47 J	1.7 J	5 U	5 U	NA	NA
Dibromochloromethane	ug/L	1 U	1 UJ	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	62	1.1	NA	1 U	1 U	NA	97 D	1 U	0.7 J	1 U	164	0.52 J	1 U	1 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	4.3 J	5 U	9.7	1 U	1 U	NA	NA	1 U	0.3 J	5 U	13	5 U	5 U	5 U	NA	NA
m&p-Xylene	ug/L	190 D	0.64 J	72	2 U	2 U	NA	NA	1 U	1 J	2 U	238 J	0.92 J	2 U	2 U	NA	NA
Methyl acetate	ug/L	5 U	5 U	5 UJ	10 U	10 U	NA	NA	10 U	10 U	5 U	10 U	5 U	5 U	5 UJ	NA	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	NA	NA
Methylcyclohexane	ug/L	50	1 U	27	20 U	20 US	NA	NA	5	7 J	1 U	40	3.5	1 U	1 U	NA	NA
Methylene Chloride	ug/L	5 U	5 U	7.4	5 U	5 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	5 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	77	1 U	45	1 U	1 U	NA	NA	1 U	1 U	1 U	124	1 U	1 U	1 U	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 US	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	19	1 U	7.5	1 U	1 US	NA	NA	1 U	0.3 J	1 U	31 J	1 U	1 U	1 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 US	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 US	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
SVOC																	
1,1'-Biphenyl	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5.3 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5.3 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5.3 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4 U	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA	4.2 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	11 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5.3 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	21 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	5.3 U	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
2-Chlorophenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
2-Methylnaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
2-Methylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
2-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
2-Nitrophenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
3&4-Methylphenol	ug/L	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 UJ	NA	NA	NA	10 UJ
3,3'-Dichlorobenzidine	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
4-Bromophenyl-phenylether	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
4-Chloro-3-Methylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
4-Chloroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
4-Chlorophenyl-phenylether	ug/L	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	NA	NA	NA	R
4-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
4-Nitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
Acenaphthene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Acenaphthylene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Acetophenone	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Anthracene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Atrazine	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Benzaldehyde	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Benzo(a)anthracene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	1 U
Benzo(a)pyrene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	2 U
Benzo(b)fluoranthene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	2 U
Benzo(g,h,i)perylene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Benzo(k)fluoranthene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
bis(2-Chloroethoxy)methane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
bis(2-Chloroethyl)ether	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	1 U
bis(2-Ethylhexyl)phthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Butylbenzylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Caprolactam	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 UJ	NA	NA	NA	10 U
Carbazole	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	10 U
Chrysene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Dibenzo(a,h)anthracene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	2 U
Dibenzofuran	ug/L	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2 U	NA	NA	NA	4 U
Diethylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-08 09/14/01	RFI-09-08 06/21/02	RFI-09-08 03/21/03	RFI-09-08 06/06/13	RFI-09-08 09/19/13	RFI-09-08D 04/07/05	RFI-09-08 03/21/03	RFI-09-09 09/25/09	RFI-09-09D 04/07/05	RFI-09-10 09/13/01	RFI-09-08D 04/07/05	RFI-09-09 09/17/01	RFI-09-09 06/21/02	RFI-09-09 03/21/03	RFI-09-09 09/25/09	RFI-09-10 09/13/01
Dimethylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Di-n-Butylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Di-n-Octylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Fluoranthene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	2 U
Fluorene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	1 U
Hexachlorobutadiene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Hexachlorocyclopentadiene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Hexachloroethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	2 U
Isophorone	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Methylphenols, Total	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Naphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Nitrobenzene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	2 U
N-Nitroso-di-n-propylamine	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Pentachlorophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA	NA	20 U
Phenanthrene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Phenol	ug/L	4.94 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
Pyrene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	5 U
PCB																	
Aroclor-1016	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1221	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1232	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1242	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1248	ug/L	0.16 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.095 J	NA	NA	NA	0.14 U
Aroclor-1254	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1260	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.16 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.095 J	NA	NA	NA	0.14 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.12 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.047 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.1 U
Total PCBs (Dissolved)	ug/L	0.047 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.12 U
Inorganic																	
Antimony	ug/L	NA	0.39 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.51 J	NA	NA	3.1 J
Arsenic	ug/L	NA	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	NA	NA	2.8
Barium	ug/L	NA	59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	NA	NA	130
Beryllium	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U
Cadmium	ug/L	NA	0.062 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 J	NA	NA	0.076 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	NA	NA	2.6 U
Cobalt	ug/L	NA	0.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	NA	NA	2.2
Copper	ug/L	NA	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	8.7 U
Cyanide (total)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 J	5 U	NA	NA	5.3
Lead	ug/L	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA	NA	1.3
Manganese	ug/L	NA	58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	890	NA	NA	130
Mercury	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-08 09/14/01	RFI-09-08 06/21/02	RFI-09-08 03/21/03	RFI-09-08 06/06/13	RFI-09-08 09/19/13	RFI-09-08D 04/07/05	RFI-09-08 03/21/03	RFI-09-09 09/25/09	RFI-09-09D 04/07/05	RFI-09-10 09/13/01	RFI-09-08D 04/07/05	RFI-09-09 09/17/01	RFI-09-09 06/21/02	RFI-09-09 03/21/03	RFI-09-09 09/25/09	RFI-09-10 09/13/01
Nickel	ug/L	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	8.4
Selenium	ug/L	NA	0.68 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.74 J	NA	NA	1.4
Silver	ug/L	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	0.13 J
Thallium	ug/L	NA	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23	NA	NA	0.061 J
Vanadium	ug/L	NA	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3	NA	NA	4.4
Zinc	ug/L	NA	17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19 UJ	NA	NA	16 J
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	2.1	NA	NA	6.8 J
Arsenic (Dissolved)	ug/L	7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.4	2.1	NA	NA	2.4
Barium (Dissolved)	ug/L	310 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	110	NA	NA	130
Beryllium (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	0.4 U
Cadmium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U
Chromium Total (Dissolved)	ug/L	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1	8	NA	NA	1.5
Cobalt (Dissolved)	ug/L	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.93	0.84	NA	NA	1
Copper (Dissolved)	ug/L	5.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.4	5.9	NA	NA	11 U
Cyanide (dissolved)	ug/L	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 J	2.1 J	NA	NA	2.1 J
Lead (Dissolved)	ug/L	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	0.66 U
Manganese (Dissolved)	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	810	710	NA	NA	110
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.27	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	8.1	NA	NA	5.6
Selenium (Dissolved)	ug/L	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	1.7 J	NA	NA	5.6 U
Silver (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 UJ	NA	NA	0.4 U
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U
Vanadium (Dissolved)	ug/L	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	2.3	NA	NA	0.8 U
Zinc (Dissolved)	ug/L	18 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	11 J	NA	NA	24 J
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	1.633	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	57.8 -	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	7.31	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	65	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	20.59	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	4.62	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	430	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-10 06/21/02	RFI-09-11 09/17/01	RFI-09-11 06/21/02	RFI-09-11 03/21/03	RFI-09-11D 04/07/05	RFI-09-12 12/13/01	RFI-09-12 06/21/02	RFI-09-12 03/21/03	RFI-09-13 10/03/01	RFI-09-13 06/26/02	RFI-09-13 03/26/03	RFI-09-13 10/04/04	RFI-09-14 10/03/01	RFI-09-14 06/26/02	RFI-09-14 03/31/03	RFI-09-14 10/04/04
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1 U [1 U]	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U [1 U]	1 U	1 U	30 U	1 U	1 U	1 U	1 U	1 UJ	1 U	300 U	1 U	NA	1 U	30 U
1,1,2-Trichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,1-Dichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,1-Dichloroethene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5 U [5 U]	5 U	5 U	2 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U	5 U	NA	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1 U [1 U]	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 UJ	1 U
1,2-Dibromoethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,2-Dichlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,2-Dichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,2-Dichloropropane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,4-Dichlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	47 J [8.7 J]	25 UJ	25 U	30 U	25 U	25 U	25 U	25 U	25 U	25 U	300 U	25 U	NA	25 U	30 U
2-Hexanone	ug/L	NA	50 U [2.6 J]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	500 U	50 U	NA	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U [50 U]	50 U	50 U	1 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	50 U	NA	50 U	1 U
Acetone	ug/L	NA	450 JD	25 U	25 U	10 J	25 U	25 U	25 U	7 J	16 J	25 U	90 J	25 U	NA	47	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	800 D [830 D]	1,100 D	1,000 D	190	10	13 J	3.6	280 D	280 D	450 D	1,210	1 U	NA	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Bromoform	ug/L	NA	1 U [1 U]	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	10 UJ	1 U	NA	1 U	1 UJ
Bromomethane	ug/L	NA	1 U [1 U]	1 U	1 UJ	R	1 U	1 U	1 UJ	1 U	1 U	1 U	20 UJ	1 U	NA	1 U	2 UJ
Carbon Disulfide	ug/L	NA	5 U [5 U]	5 U	5 UJ	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	50 U	5 U	NA	5 U	5 UJ
Carbon Tetrachloride	ug/L	NA	1 U [1 U]	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Chlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Chloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 UJ	1 U	NA	1 U	1 UJ
Chloroform	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Chloromethane	ug/L	NA	1 U [1 U]	1 U	1 UJ	5 U	1 U	1 U	1 UJ	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
cis-1,2-Dichloroethene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	0.69 J	1 U	1 U	10 U	1 U	NA	1 U	1 U
cis-1,3-Dichloropropene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Cyclohexane	ug/L	NA	73 [89]	94	35	35 J	3 J	5 UJ	5 U	190 D	190 D	170 D	310 J	5 U	NA	5 U	1 U
Dibromochloromethane	ug/L	NA	1 U [1 U]	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5.6 J	1 U	2.1	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	65 [87]	75	26	3	1 U	1 U	1 U	4.6	5.3	4.8	3 J	1 U	NA	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	6.5 [7.2]	9	5 U	0.4 J	5 U	5 U	5 U	26	23	21	30	5 U	NA	5 U	1 U
m&p-Xylene	ug/L	NA	120 [190]	63	44	11 J	2 U	2 U	2 U	35	34	34	50 J	2 U	NA	2 U	1 U
Methyl acetate	ug/L	NA	5 U [5 U]	5 U	5 UJ	10 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	100 U	5 U	NA	5 U	10 U
Methyl tert-butyl ether	ug/L	NA	5 U [5 U]	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	NA	5 U	5 U
Methylcyclohexane	ug/L	NA	36 [34]	42	11	20	1 U	1 UJ	1 U	85	87	67	100 J	1 U	NA	1 U	20 U
Methylene Chloride	ug/L	NA	5 U [5 U]	5 U	6.7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	NA	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	53 [80]	25	22	12	1 U	1 U	1 U	6.4	6	6.5	8 J	1 U	NA	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-10 06/21/02	RFI-09-11 09/17/01	RFI-09-11 06/21/02	RFI-09-11 03/21/03	RFI-09-11D 04/07/05	RFI-09-12 12/13/01	RFI-09-12 06/21/02	RFI-09-12 03/21/03	RFI-09-13 10/03/01	RFI-09-13 06/26/02	RFI-09-13 03/26/03	RFI-09-13 10/04/04	RFI-09-14 10/03/01	RFI-09-14 06/26/02	RFI-09-14 03/31/03	RFI-09-14 10/04/04
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	10 U	1 UJ	NA	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	140 D [170 D]	75	100	20 J	1 U	1 U	1 U	11	11	13	20	1 U	NA	1 U	1 U
trans-1,2-Dichloroethene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
trans-1,3-Dichloropropene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Trichlorofluoromethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
Vinyl Chloride	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	NA	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U [4 U]	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	10 U [10 U]	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	5 U [0.53 J]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	10 UJ [10 UJ]	NA	NA	NA	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	R [R]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	1 U [1 U]	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	2 U [2 U]	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	2 U [2 U]	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U [1 U]	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	10 UJ [10 UJ]	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	10 U [10 U]	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U [2 U]	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	4 U [4 U]	NA	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-10 06/21/02	RFI-09-11 09/17/01	RFI-09-11 06/21/02	RFI-09-11 03/21/03	RFI-09-11D 04/07/05	RFI-09-12 12/13/01	RFI-09-12 06/21/02	RFI-09-12 03/21/03	RFI-09-13 10/03/01	RFI-09-13 06/26/02	RFI-09-13 03/26/03	RFI-09-13 10/04/04	RFI-09-14 10/03/01	RFI-09-14 06/26/02	RFI-09-14 03/31/03	RFI-09-14 10/04/04
Dimethylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	2 U [2 U]	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U [2 U]	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	3.41 J [4.92 J]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	2 U [2 U]	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	20 U [20 U]	NA	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	5 U [5 U]	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	0.24 [0.26]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.24 [0.26]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.26 [0.3]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U [0.1 U]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.26 [0.3]	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	3	NA	NA	NA	NA	1.2 U	1.2 U	1.2 U	NA	1.2 U	NA	NA	NA	0.71 J	NA	NA
Arsenic	ug/L	2	NA	NA	NA	NA	61 J	49	56	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	47	NA	NA	NA	NA	140 J	96	100	NA	NA	NA	608	NA	150	NA	117
Beryllium	ug/L	0.4 U	NA	NA	NA	NA	2.7 J	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	0.057 J	NA	NA	NA	NA	1 J	0.2 U	0.049 J	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	3	NA	NA	NA	NA	1.5 J	0.49 J	0.42 J	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	1.7	NA	NA	NA	NA	1.5 J	0.55	0.51	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	6.2	NA	NA	NA	NA	5.1 J	1.7	2.9	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5 U	2.7 J [2.4 J]	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	1.9	NA	NA	NA	NA	1.9 J	0.13 J	0.23 J	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	110	NA	NA	NA	NA	110 J	65	50	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	0.2 U [0.2 U]	NA	NA	NA	0.2 U	0.139 J	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-10 06/21/02	RFI-09-11 09/17/01	RFI-09-11 06/21/02	RFI-09-11 03/21/03	RFI-09-11D 04/07/05	RFI-09-12 12/13/01	RFI-09-12 06/21/02	RFI-09-12 03/21/03	RFI-09-13 10/03/01	RFI-09-13 06/26/02	RFI-09-13 03/26/03	RFI-09-13 10/04/04	RFI-09-14 10/03/01	RFI-09-14 06/26/02	RFI-09-14 03/31/03	RFI-09-14 10/04/04
Nickel	ug/L	6.6	NA	NA	NA	NA	5.8 J	2.6	2.9	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	0.5 J	NA	NA	NA	NA	4.5 U	1.4 U	1.6 U	NA	1.4 U	NA	5 U	NA	2.5 U	NA	5 U
Silver	ug/L	0.4 UJ	NA	NA	NA	NA	0.68 J	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	0.1 J	NA	NA	NA	NA	0.17 J	0.045 J	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	4.3	NA	NA	NA	NA	0.8 U	0.8 U	0.34 J	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	28 UJ	NA	NA	NA	NA	17 U	11 UJ	28	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	1.2 U [1.2 U]	NA	NA	NA	1.2 U	1.2 U	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	3.5 [2.6]	NA	NA	NA	43	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	1,400 [1,500]	NA	NA	NA	83	74	NA	690 J	NA	NA	NA	R	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	0.84 [1.1]	NA	NA	NA	0.6 U	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	1.1 [0.79]	NA	NA	NA	0.56	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	3.8 [13]	NA	NA	NA	0.6 U	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	3.3 J [2.3 J]	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	0.42 [0.4 U]	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	280 [210]	NA	NA	NA	69	51	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	9.8 [9]	NA	NA	NA	0.4 U	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	1.4 U [1.4 U]	NA	NA	NA	1.4 U	1.4 U	NA	NA	2.4 U	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 U [0.4 U]	NA	NA	NA	0.4 UJ	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U [0.8 U]	NA	NA	NA	0.8 U	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	48 [47]	NA	NA	NA	6.5	6 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-14 12/08/05	RFI-09-14 06/27/07	RFI-09-14 11/01/07	RFI-09-14 03/18/08	RFI-09-14 06/18/08	RFI-09-14 09/10/08	RFI-09-14 12/02/08	RFI-09-14 10/13/10	RFI-09-32 03/06/02	RFI-09-32 06/26/02	RFI-09-32 03/31/03	RFI-09-36R 03/24/03	RFI-09-36R 06/06/13	RFI-09-36R 09/19/13	RFI-09-44 03/21/03	RFI-09-44 10/05/04
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U [30 U]	NA	190 U	1 UJ	1 U	1 U	30 U	30 U	1 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U [2 U]	5 U	190 U	5 U	5 U	5 U	2 U	2 U	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	190 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	190 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	20 U	20 U	20 U	20 U	20 U	20 UJ [20 UJ]	30 U	320 U	25 U	25 U	25 U	20 U	20 U	25 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ [50 UJ]	50 U	320 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	50 U	320 U	50 U	50 U	50 U	10 U	10 U	50 U	1 U
Acetone	ug/L	30 U	20 U	20 U	20 U	2 J	20 U	20 UJ [20 UJ]	50 U	69 J	25 U	25 U	25 U	20 U	20 U	25 U	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U [2 U]	5 U	190 U	1 U	1 U	1 UJ	2 U	2 U	1 UJ	2 UJ
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	190 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]	5 U	190 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	190 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U [1 U]	NA	190 U	5 U	5 U	5 U	1 U	1	5 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U [1 U]	5 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	190 U	5 U	5 U	5 U	1 U	1 U	5 U	1 U
m&p-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 U	89 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	NA	190 U	5 U	5 U	5 U	10 U	10 U	5 UJ	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	320 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U [20 U]	NA	190 U	1 U	1 U	1 U	20 U	20 U	1 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	190 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	1 U	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	1 U	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

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tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	89 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	45 U	1 U	1 U	1 U	2	2	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-14 12/08/05	RFI-09-14 06/27/07	RFI-09-14 11/01/07	RFI-09-14 03/18/08	RFI-09-14 06/18/08	RFI-09-14 09/10/08	RFI-09-14 12/02/08	RFI-09-14 10/13/10	RFI-09-32 03/06/02	RFI-09-32 06/26/02	RFI-09-32 03/31/03	RFI-09-36R 03/24/03	RFI-09-36R 06/06/13	RFI-09-36R 09/19/13	RFI-09-44 03/21/03	RFI-09-44 10/05/04
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	16 J	1.2 U	0.98 J	NA	NA	NA	0.37 J	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7	NA	NA	NA	1.7 J	2 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	NA	NA	NA	160	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.18 J	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1	NA	NA	NA	1.8	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	NA	NA	NA	1.2	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	NA	NA	NA	5.5	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.55	0.4 U	NA	NA	NA	0.33 J	3 U
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140 J	NA	NA	NA	300	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-14 12/08/05	RFI-09-14 06/27/07	RFI-09-14 11/01/07	RFI-09-14 03/18/08	RFI-09-14 06/18/08	RFI-09-14 09/10/08	RFI-09-14 12/02/08	RFI-09-14 10/13/10	RFI-09-32 03/06/02	RFI-09-32 06/26/02	RFI-09-32 03/31/03	RFI-09-36R 03/24/03	RFI-09-36R 06/06/13	RFI-09-36R 09/19/13	RFI-09-44 03/21/03	RFI-09-44 10/05/04
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7	NA	NA	NA	9.2	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	1.6 U	NA	NA	NA	1.6 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.86	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.53 J	NA	NA	NA	0.8 U	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	NA	NA	NA	10	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	799,000	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	0.339	0.57	0.872	0.485	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	105.6	2.4 -	23.4	17.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	7.13	6.72	6.71	6.69	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	30	65	60	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	6.47	11.67	16.52	10.39	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	4.99	4.04	7.3	5.98	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	2,170	1,020	1,060	590	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-45 12/20/02	RFI-09-46 12/19/02	RFI-09-46 04/01/03	RFI-09-46 10/05/04	RFI-09-46 06/27/07	RFI-09-46 10/26/07	RFI-09-46 03/18/08	RFI-09-46 06/17/08	RFI-09-46 09/12/08	RFI-09-46 12/02/08	RFI-09-46 10/13/10	RFI-09-46 10/25/11	RFI-09-46 11/08/12	RFI-09-46 06/07/13	RFI-09-48 04/24/03
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	30 U	30 U	30 U	30 U [30 U]	30 U	30 U	30 U	NA	30 U	30 U	30 U	1 U
1,1,2-Trichloroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	0.1 J	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 [3]	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U [5 U]	5 U [5 U]	5 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	5 U [5 U]	2 U	2 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U [1 U]	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5 U [5 U]	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	2 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U [25 U]	25 U [25 U]	25 U	30 U	20 U	20 U	2 J [20 U]	20 U	20 U	20 UJ	130 U [140 U]	20 U	20 U	20 U	25 U
2-Hexanone	ug/L	50 U [50 U]	50 U [50 U]	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 UJ	50 UJ	50 U [50 U]	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U [50 U]	50 U [50 U]	50 U	1 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	50 U [50 U]	10 U	10 U	10 U	50 U
Acetone	ug/L	25 U [25 U]	6.1 J [5.2 J]	25 U	60 J	40 U	20 U	20 U [20 U]	30 U	50 U	20 UJ	50 U [50 U]	20 U	20 U	20 U	1.9 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA
Benzene	ug/L	1 U [1 U]	700 D [680 D]	500 D	49	34	165	26 [25]	26	76	22	68 [64]	28	3	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U [1 U]	1 UJ [1 UJ]	1 U	1 UJ	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 UJ [1 UJ]	1 U [1 U]	1 U	2 UJ	2 U	2 U	2 UJ [2 UJ]	2 U	2 U	2 U	5 U [5 U]	2 U	2 U	2 U	1 U
Carbon Disulfide	ug/L	5 U [5 U]	0.57 J [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 UJ [1 UJ]	1 UJ [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	1 U	5 U [5 U]	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	3 U	4 U	13 U	4 U [5 U]	6 UJ	4 UJ	9 U	5 U [9 U]	1 U	5 UX	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U [5 U]	170 D [160 D]	160 D	123 J	98	136	85 [85]	102	58 J	125	NA	113	87	50	5 U
Dibromochloromethane	ug/L	1 U [1 U]	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5 U [5 U]	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 UJ	1 U	5 U [5 U]	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U [1 U]	1.9 [1.8]	1.6	0.4 J	0.3 J	0.6 J	0.4 J [0.4 J]	0.4 J	0.5 J	0.5 J	1 U [1 U]	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U [5 U]	17 [16]	15	9	7	11	7 [7]	8	10	12 J	11 [10]	10	8	4	5 U
m&p-Xylene	ug/L	2 U [2 U]	45 [43]	38	16 J	8	12	7 [7]	8	10	12	13 [11]	12	9	5	2 U
Methyl acetate	ug/L	5 U [5 U]	5 U [5 U]	5 U	10 UJ	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	NA	10 U	10 U	10 U	5 U
Methyl tert-butyl ether	ug/L	5 U [5 U]	0.61 J [0.59 J]	5 U	5 U	5 U	0.9 J	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U [1 U]	49 [45]	48	40	30	40	30 [30]	40	40	40	NA	50	40	20 U	1 U
Methylene Chloride	ug/L	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16 [15]	18	12	6	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8 [7]	8	6	3	NA
o-Xylene	ug/L	1 U [1 U]	8.2 [7.8]	6.7	3	2	4	2 [2]	2	3	4	4 [4]	3	3	1	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
Styrene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-45 12/20/02	RFI-09-46 12/19/02	RFI-09-46 04/01/03	RFI-09-46 10/05/04	RFI-09-46 06/27/07	RFI-09-46 10/26/07	RFI-09-46 03/18/08	RFI-09-46 06/17/08	RFI-09-46 09/12/08	RFI-09-46 12/02/08	RFI-09-46 10/13/10	RFI-09-46 10/25/11	RFI-09-46 11/08/12	RFI-09-46 06/07/13	RFI-09-48 04/24/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U [90 U]	NA	NA	NA	NA
Toluene	ug/L	1 U [1 U]	19 [18]	16	6	4	7	4 [4]	4	5	5	6 [6]	5	4	2	1 U
trans-1,2-Dichloroethene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA
Trichloroethene	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-45 12/20/02	RFI-09-46 12/19/02	RFI-09-46 04/01/03	RFI-09-46 10/05/04	RFI-09-46 06/27/07	RFI-09-46 10/26/07	RFI-09-46 03/18/08	RFI-09-46 06/17/08	RFI-09-46 09/12/08	RFI-09-46 12/02/08	RFI-09-46 10/13/10	RFI-09-46 10/25/11	RFI-09-46 11/08/12	RFI-09-46 06/07/13	RFI-09-48 04/24/03
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	1.1 J [1.2 J]	1.2 U [1.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U
Arsenic	ug/L	2 J [2.4 J]	2.2 J [2 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49
Barium	ug/L	130 [120]	1,300 J [1,200 J]	NA	635	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190
Beryllium	ug/L	0.4 U [0.4 U]	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U
Cadmium	ug/L	0.057 J [0.089 J]	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	1.9 J [2.4 J]	0.6 U [0.6 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.49 J
Cobalt	ug/L	0.8 J [0.61 J]	0.4 J [0.34 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.92
Copper	ug/L	4.2 J [5.1 J]	3.3 J [1.9 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3
Cyanide (total)	ug/L	5 U [5 U]	5 U [3.3 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6 J
Lead	ug/L	0.9 J [0.96 J]	0.48 J [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 J
Manganese	ug/L	91 [79]	65 J [59 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90
Mercury	ug/L	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-45 12/20/02	RFI-09-46 12/19/02	RFI-09-46 04/01/03	RFI-09-46 10/05/04	RFI-09-46 06/27/07	RFI-09-46 10/26/07	RFI-09-46 03/18/08	RFI-09-46 06/17/08	RFI-09-46 09/12/08	RFI-09-46 12/02/08	RFI-09-46 10/13/10	RFI-09-46 10/25/11	RFI-09-46 11/08/12	RFI-09-46 06/07/13	RFI-09-48 04/24/03
Nickel	ug/L	4.9 J [4.9 J]	6.9 J [5.8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12
Selenium	ug/L	4.2 J [6.6 J]	1.6 U [1.6 U]	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6 U
Silver	ug/L	0.4 UJ [0.4 UJ]	0.4 UJ [0.4 UJ]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ
Thallium	ug/L	0.2 U [0.2 U]	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.061 J
Vanadium	ug/L	0.89 J [0.99 J]	0.8 U [0.8 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U
Zinc	ug/L	110 J [73 J]	57 J [47 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	1.845	2.99	2.25	2.611	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	19.3	131.8 -	98.2 -	119.8 -	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	7.06	7.08	7.09	7.09	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	30	60	65	30	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	9.18	11.94	16.92	10.88	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	0.01	1.09	1.44	0.81	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	1,460	990	340	230	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-48 10/06/04	RFI-09-48 02/24/05	RFI-09-48 12/08/05	RFI-09-48 11/01/06	RFI-09-48 04/23/07	RFI-09-48 06/27/07	RFI-09-48 11/01/07	RFI-09-48 03/18/08	RFI-09-48 06/17/08	RFI-09-48 09/12/08	RFI-09-48 12/02/08	RFI-09-48 10/18/10	RFI-09-48 10/25/11	RFI-09-48 11/09/12	RFI-09-48 06/07/13	RFI-09-49R 04/03/03
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	NA	30 U	30 U	30 U	30 U [30 U]	30 U	30 U	30 U	30 U	30 U	NA	30 U [30 U]	30 U	30 U [30 U]	1 U
1,1,2-Trichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,1-Dichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,1-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	NA	2 U	2 U	2 U	2 U [2 U]	2 U	2 UJ	2 U	2 U	2 U	5 U	2 U [2 U]	2 U	2 U [2 U]	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,2-Dibromoethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,2-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,2-Dichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,2-Dichloropropane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,4-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	NA	30 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 UJ	30 U	20 U [20 U]	20 U	20 U [20 U]	25 U
2-Hexanone	ug/L	50 U	NA	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U [50 U]	50 U	50 U [50 U]	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	NA	1 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	50 U	10 U [10 U]	10 U	10 U [10 U]	50 U
Acetone	ug/L	30 U	NA	30 U	20 U	20 UJ	20 U [20 U]	20 U	20 U	20 U	20 U	20 UJ	50 U	20 U [20 U]	20 U	20 U [20 U]	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA
Benzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Bromoform	ug/L	1 UJ	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Bromomethane	ug/L	2 UJ	NA	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	5 U	2 U [2 U]	2 U	2 U [2 U]	1 U
Carbon Disulfide	ug/L	5 UJ	NA	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U
Carbon Tetrachloride	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Chlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Chloroethane	ug/L	1 UJ	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Chloroform	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Chloromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 UJ	1 U	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U
cis-1,2-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
cis-1,3-Dichloropropene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Cyclohexane	ug/L	1 U	NA	1 U	1 UJ	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	NA	1 U [1 U]	1 U	1 U [1 U]	5 U
Dibromochloromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	5 U
m&p-Xylene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	2 U	2 U [2 U]	2 U	2 U [2 U]	2 U
Methyl acetate	ug/L	10 U	NA	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	NA	10 U [10 U]	10 U	10 U [10 U]	5 UJ
Methyl tert-butyl ether	ug/L	5 U	NA	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U
Methylcyclohexane	ug/L	20 U	NA	20 U	20 U	20 U	20 U [20 U]	20 U	20 UJ	20 U	20 U	20 U	NA	20 U [20 U]	20 U	20 U [20 U]	1 U
Methylene Chloride	ug/L	5 U	NA	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	5 U [5 U]	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U [1 U]	1 U	1 U [1 U]	NA
o-Xylene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Styrene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-48 10/06/04	RFI-09-48 02/24/05	RFI-09-48 12/08/05	RFI-09-48 11/01/06	RFI-09-48 04/23/07	RFI-09-48 06/27/07	RFI-09-48 11/01/07	RFI-09-48 03/18/08	RFI-09-48 06/17/08	RFI-09-48 09/12/08	RFI-09-48 12/02/08	RFI-09-48 10/18/10	RFI-09-48 10/25/11	RFI-09-48 11/09/12	RFI-09-48 06/07/13	RFI-09-49R 04/03/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA
Toluene	ug/L	1 U	NA	1 U	1 U	0.2 J	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
trans-1,2-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
trans-1,3-Dichloropropene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	2.8
Trichlorofluoromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	4.2
Vinyl Chloride	ug/L	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.3 J	0.6 J	0.9 J	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-48 10/06/04	RFI-09-48 02/24/05	RFI-09-48 12/08/05	RFI-09-48 11/01/06	RFI-09-48 04/23/07	RFI-09-48 06/27/07	RFI-09-48 11/01/07	RFI-09-48 03/18/08	RFI-09-48 06/17/08	RFI-09-48 09/12/08	RFI-09-48 12/02/08	RFI-09-48 10/18/10	RFI-09-48 10/25/11	RFI-09-48 11/09/12	RFI-09-48 06/07/13	RFI-09-49R 04/03/03
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23 [24]	NA
Barium	ug/L	202	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	149	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
Cyanide (total)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	5 U	5 U [5 U]	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 U	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	428 [430]	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-48 10/06/04	RFI-09-48 02/24/05	RFI-09-48 12/08/05	RFI-09-48 11/01/06	RFI-09-48 04/23/07	RFI-09-48 06/27/07	RFI-09-48 11/01/07	RFI-09-48 03/18/08	RFI-09-48 06/17/08	RFI-09-48 09/12/08	RFI-09-48 12/02/08	RFI-09-48 10/18/10	RFI-09-48 10/25/11	RFI-09-48 11/09/12	RFI-09-48 06/07/13	RFI-09-49R 04/03/03
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	NA
Selenium	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U [0.5 U]	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	2.256	3.577	2.289	3.761	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	25 -	123.3 -	27 -	55.3 -	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	7.36	7.6	6.98	8.49	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	30	60	65	25	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	10.67	14.81	17.54	11.37	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	1.24	3.67	4.52	0.35	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	1,320	230	1,030	900	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-49R 10/05/04	RFI-09-52 09/15/03	RFI-09-53 04/07/05	RFI-09-53 06/08/05	RFI-09-53 11/01/06	RFI-09-53 11/14/07	RFI-09-53 09/12/08	RFI-09-53 09/24/09	RFI-09-53 10/18/10	RFI-09-53 10/20/11	RFI-09-53 11/08/12	RFI-09-53 06/06/13	RFI-09-54D 04/08/05	RFI-09-54S 04/07/05	RFI-09-55D 04/08/05	RFI-09-55S 04/08/05
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	50	258	145 [132]	133	135	1 U	39	131	61	36	1 U	1 U	10 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	1 U	0.5 J	200 U	30 U [30 U]	30 U	0.3 J	30 U	NA	30 U	30 U	30 U	30 U	30 U	300 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	15	35	28 [26]	28	62	1 U	49	72	74	22	1 U	1 U	10 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	0.6 J	4 J	2 [2]	2	2	1 U	1 U	3	3	1 U	1 U	1 U	10 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	5 U	2 U	10 U	2 U [2 U]	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 UJ	5 U	1 U [1 U]	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 UJ	1 UJ	10 UJ	1 UJ
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3	10 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	0.3	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	25 U	30 U	100 U	20 U [20 U]	20 U	20 U	20 U	30 U	20 U	20 U	20 U	30 U	30 U	300 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	300 U	50 U [50 U]	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	500 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	50 U	1 U	5 U	10 U [10 U]	10 U	10 U	10 U	50 U	10 U	10 U	10 U	1 U	1 U	10 U	1 U
Acetone	ug/L	30 U	25 U	30 UJ	100 U	20 U [20 U]	20 U	20 U	20 U	50 U	20 U	20 U	20 U	30 UJ	7 J	100 J	10 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	0.3 J	5 U	1 U [1 U]	0.2 J	0.4 J	0.1	1 U	1 U	1 U	1 U	33	6	840	0.5 J
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Bromoform	ug/L	1 UJ	1 U	1 UJ	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	10 UJ	1 UJ
Bromomethane	ug/L	2 UJ	1 U	R	10 U	2 U [2 U]	2 U	2 U	2 U	5 U	2 U	2 U	2 U	R	R	R	R
Carbon Disulfide	ug/L	5 UJ	5 U	5 U	30 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	0.3 J	5 U	2 [1]	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Chloroethane	ug/L	1 UJ	1 U	1 U	5 U	1 U [1 U]	1 U	2	1 U	5 U	1 U	1	1 U	1 U	1 U	10 U	1 U
Chloroform	ug/L	1 U	1 U	2	3 J	5 [4]	3	2	1 U	2	2	2	2	1 U	1 U	10 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
cis-1,2-Dichloroethene	ug/L	3	1 U	12	11	24 [21]	28	68	2	25	54	84	20	1 U	1 U	10 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Cyclohexane	ug/L	1 U	5 U	1 UJ	5 U	1 UJ [1 UJ]	1 U	1 UJ	1 U	NA	1 U	1 U	1 U	10 J	0.8 J	560 J	88 J
Dibromochloromethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 UJ	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	70	10
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	5 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	20	5
m&p-Xylene	ug/L	1 U	2 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	2 U	2 U	2 U	2 U	0.5 J	2 J	330 J	12 J
Methyl acetate	ug/L	10 U	5 U	10 U	50 U	10 U [10 U]	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U	100 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 UJ	30 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	50 UJ	5 UJ
Methylcyclohexane	ug/L	20 U	0.64 J	0.2 J	100 U	20 U [20 U]	20 U	20 U	20 U	NA	20 U	20 U	20 U	20 U	1 J	400	180
Methylene Chloride	ug/L	5 U	5 U	5 U	30 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 J	5 U	7 J	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	20	1
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-49R 10/05/04	RFI-09-52 09/15/03	RFI-09-53 04/07/05	RFI-09-53 06/08/05	RFI-09-53 11/01/06	RFI-09-53 11/14/07	RFI-09-53 09/12/08	RFI-09-53 09/24/09	RFI-09-53 10/18/10	RFI-09-53 10/20/11	RFI-09-53 11/08/12	RFI-09-53 06/06/13	RFI-09-54D 04/08/05	RFI-09-54S 04/07/05	RFI-09-55D 04/08/05	RFI-09-55S 04/08/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.7 J	0.9 J	20 J	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	0.3 J	5 U	1 U [1 U]	0.2 J	0.4 J	0.2	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	8	1 U	35	184	113 [106]	123	104	1	45	75	29	31	1 U	1 U	10 U	1 U
Trichlorofluoromethane	ug/L	14	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 J	5 U	4 [4]	5	23	3	8	32	27	3	1 U	1 U	10 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-49R 10/05/04	RFI-09-52 09/15/03	RFI-09-53 04/07/05	RFI-09-53 06/08/05	RFI-09-53 11/01/06	RFI-09-53 11/14/07	RFI-09-53 09/12/08	RFI-09-53 09/24/09	RFI-09-53 10/18/10	RFI-09-53 10/20/11	RFI-09-53 11/08/12	RFI-09-53 06/06/13	RFI-09-54D 04/08/05	RFI-09-54S 04/07/05	RFI-09-55D 04/08/05	RFI-09-55S 04/08/05
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-49R 10/05/04	RFI-09-52 09/15/03	RFI-09-53 04/07/05	RFI-09-53 06/08/05	RFI-09-53 11/01/06	RFI-09-53 11/14/07	RFI-09-53 09/12/08	RFI-09-53 09/24/09	RFI-09-53 10/18/10	RFI-09-53 10/20/11	RFI-09-53 11/08/12	RFI-09-53 06/06/13	RFI-09-54D 04/08/05	RFI-09-54S 04/07/05	RFI-09-55D 04/08/05	RFI-09-55S 04/08/05
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	0.567	0.879	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	112.6 -	90.3 -	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	6.99	7.53	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	65	70	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	17.16	18.05	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	0.53	2.63	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	980	360	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-55S 06/07/13	RFI-09-55S 11/01/13	RFI-09-56 07/06/05	RFI-09-57 07/06/05	RFI-09-58 07/22/05	RFI-10-01 09/24/01	RFI-10-01 02/22/02	RFI-10-01 06/18/02	RFI-10-01 03/26/03	RFI-10-02 09/24/01	RFI-10-02 06/18/02	RFI-10-02 03/27/03	RFI-10-03 09/26/01	RFI-10-03 06/19/02	RFI-10-03 03/25/03	RFI-10-03 06/05/13
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	130 D	220 D	180 D	141 Y
1,1,2,2-Tetrachloroethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 UJ	1 U	1 U	1 UJ	1 U	1 U	5 UY
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	NA	30 U	30 U	30 U [30 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	200 UY
1,1,2-Trichloroethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	0.53 J	0.55 J	1 U	5 UY
1,1-Dichloroethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1.1	NA	NA	NA	1.8	5.3 J	1.3	630 D	580 D	750 D	498 Y
1,1-Dichloroethene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	59	83	38	20 Y
1,2,3-Trichlorobenzene	ug/L	NA	30 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	8 X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	30 UX	2 U	2 U	2 U [2 U]	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	10 UY
1,2,4-Trimethylbenzene	ug/L	NA	19 X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	30 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
1,2-Dibromoethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
1,2-Dichlorobenzene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
1,2-Dichloroethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	0.71 J	NA	NA	NA	1.3	1.5 J	1 U	1 U	0.53 J	1 U	5 UY
1,2-Dichloropropane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
1,3,5-Trimethylbenzene	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
1,4-Dichlorobenzene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	130 UX	30 U	30 U	30 U [30 U]	25 U	NA	NA	NA	25 U	6.8 J	25 U	25 U	25 U	25 U	100 UY
2-Hexanone	ug/L	50 U	250 UX	50 U	50 U	50 U [50 U]	50 U	NA	NA	NA	50 U	6.7 J	50 U	50 U	50 U	50 U	300 UY
2-Methylnaphthalene	ug/L	NA	30 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	250 UX	1 U	1 U	1 U [1 U]	50 U	NA	NA	NA	3.5 J	9.8 J	50 U	50 U	50 UJ	50 U	50 UY
Acetone	ug/L	30 UX	250 UX	40	7 J	30 U [30 U]	8.1 J	NA	NA	NA	11 J	12 J	41	25 U	2 J	25 U	100 UY
Acrylonitrile	ug/L	NA	10 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	5 UX	1	1 U	1 U [1 U]	1.6	NA	NA	NA	17	16 J	10	1.1	1.2	1 U	5 UY
Bromobenzene	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Bromoform	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 UJ	1 U	1 U	5 UY
Bromomethane	ug/L	2 U	30 UX	2 U	2 U	2 U [2 U]	1 U	NA	NA	NA	1 UJ	1 U	1 U	1 U	1 U	1 U	10 UY
Carbon Disulfide	ug/L	5 U	30 UX	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	30 UY
Carbon Tetrachloride	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Chlorobenzene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Chloroethane	ug/L	1 U	30 UX	1 U	1 U	1 U [1 U]	170 D	NA	NA	NA	2,600 JD	3,300 JD	1,900 D	240 D	140 D	130 D	218 Y
Chloroform	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	2.6	1.2	4.2	5 UY
Chloromethane	ug/L	1 U	30 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
cis-1,2-Dichloroethene	ug/L	1 U	5 UX	0.9 J	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	150 D	130 D	53	56 Y
cis-1,3-Dichloropropene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Cyclohexane	ug/L	137	NA	1 U	1 U	1 UJ [1 UJ]	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 UY
Dibromochloromethane	ug/L	1 U	30 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Dibromomethane	ug/L	NA	30 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	30 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Diethyl ether	ug/L	NA	50 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	6	25 X	0.3 J	1 U	1 U [1 U]	1 U	NA	NA	NA	47	62 J	15	1 U	1 U	1 U	5 UY
Hexachloroethane	ug/L	NA	30 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	3	30 UX	1 U	1 U	1 U [1 U]	5 U	NA	NA	NA	1.2 J	1.8 J	5 U	5 U	5 U	5 U	5 UY
m&p-Xylene	ug/L	5	20 X	0.8 J	1 U	1 U [1 U]	0.77 J	NA	NA	NA	170	170 J	2 U	2 U	2 U	2 U	10 UY
Methyl acetate	ug/L	10 U	NA	10 U	10 U	10 U [10 U]	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	50 UY
Methyl tert-butyl ether	ug/L	5 U	30 UX	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	5 U	5 U	5 U	1.2 J	0.74 J	5 U	30 UY
Methylcyclohexane	ug/L	140	NA	20 U	20 U	20 U [20 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	100 UY
Methylene Chloride	ug/L	5 U	30 UX	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	8	14 UJ	5 U	8.4	5.7 UJ	5 U	30 UY
Naphthalene	ug/L	5 U	30 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 UY
n-Butylbenzene	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	4	9 X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 UY
o-Xylene	ug/L	1 U	5 UX	0.6 J	1 U	1 U [1 U]	0.53 J	NA	NA	NA	64	43 J	1 U	1 U	1 U	1 U	5 UY
p-Isopropyltoluene	ug/L	NA	30 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-55S 06/07/13	RFI-09-55S 11/01/13	RFI-09-56 07/06/05	RFI-09-57 07/06/05	RFI-09-58 07/22/05	RFI-10-01 09/24/01	RFI-10-01 02/22/02	RFI-10-01 06/18/02	RFI-10-01 03/26/03	RFI-10-02 09/24/01	RFI-10-02 06/18/02	RFI-10-02 03/27/03	RFI-10-03 09/26/01	RFI-10-03 06/19/02	RFI-10-03 03/25/03	RFI-10-03 06/05/13
tert-Butylbenzene	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Tetrahydrofuran	ug/L	NA	450 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	5 UX	2	1 U	1 U [1 U]	1 U	NA	NA	NA	9.6	6.5 J	1.5	1 U	1 U	1 U	5 UY
trans-1,2-Dichloroethene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	0.67 J	0.72 J	1 U	8.7	10	3	5 UY
trans-1,3-Dichloropropene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
trans-1,4-Dichloro-2-butene	ug/L	NA	5 UX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	150 D	150 D	160 D	149 Y
Trichlorofluoromethane	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	5 UY
Vinyl Chloride	ug/L	1 U	5 UX	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	0.83 J	1 U	60	54	10	15 Y
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	4 U	NA	NA	NA	4.3 U	NA	NA	4.5 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	10 U	NA	NA	NA	11 U	NA	NA	11 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	24.6	NA	NA	5.6 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 UJ	NA	NA	22 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.15 J	NA	NA	5.6 U	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	10 UJ	NA	NA	NA	11 UJ	NA	NA	11 UJ	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 UJ	NA	NA	22 UJ	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	R	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	5 UJ	NA	NA	NA	5.3 UJ	NA	NA	5.6 U	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	10 U	NA	NA	NA	11 U	NA	NA	11 U	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	10 U	NA	NA	NA	11 U	NA	NA	11 U	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	4 U	NA	NA	NA	4.3 U	NA	NA	4.5 U	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-55S 06/07/13	RFI-09-55S 11/01/13	RFI-09-56 07/06/05	RFI-09-57 07/06/05	RFI-09-58 07/22/05	RFI-10-01 09/24/01	RFI-10-01 02/22/02	RFI-10-01 06/18/02	RFI-10-01 03/26/03	RFI-10-02 09/24/01	RFI-10-02 06/18/02	RFI-10-02 03/27/03	RFI-10-03 09/26/01	RFI-10-03 06/19/02	RFI-10-03 03/25/03	RFI-10-03 06/05/13
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.15 J	NA	NA	5.6 U	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	20 U	NA	NA	NA	21 U	NA	NA	22 U	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	1.2 U	0.35 J	NA	1.2 U	0.36 J	NA	1.2 U	0.43 J	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	2.6 U	3.3	NA	41	52	NA	4.4	1 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	33,000	25,000	NA	410	340	NA	200	510	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	0.13 J	0.4 U	NA	0.4 UJ	0.4 U	NA	0.4 UJ	0.4 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	0.54	0.083 J	NA	0.2 U	0.048 J	NA	3.2	4.4	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	1.7	4.1	NA	1.6	7.7	NA	2.9	6.5	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	1.1	2.1	NA	6.7	6.8	NA	11	9.4	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	310 J	42	NA	5.9 J	7.1	NA	11 J	6.7	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	9.8	NA	4.7 J	12	3.7 J	5 U	3.1 J	11	9.9	23	11
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	8.8	4.8	NA	0.86	2.9	NA	2.3	0.55	NA
Manganese	ug/L	150	146	NA	NA	NA	NA	NA	540	520	NA	7,600	3,200	NA	4,000	1,300	1,810
Mercury	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 J	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-09-55S 06/07/13	RFI-09-55S 11/01/13	RFI-09-56 07/06/05	RFI-09-57 07/06/05	RFI-09-58 07/22/05	RFI-10-01 09/24/01	RFI-10-01 02/22/02	RFI-10-01 06/18/02	RFI-10-01 03/26/03	RFI-10-02 09/24/01	RFI-10-02 06/18/02	RFI-10-02 03/27/03	RFI-10-03 09/26/01	RFI-10-03 06/19/02	RFI-10-03 03/25/03	RFI-10-03 06/05/13
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	12	18	NA	36	44	NA	24	57	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	1.4 U	1.6 U	NA	1.4 U	3.1	NA	1.4 U	1.6 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.12 J	NA	0.4 U	0.4 U	NA	0.4 U	3	0.5 U
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.06 J	NA	0.27	0.23	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	0.8 U	0.8 U	NA	2.3	8.5	NA	2.9	0.8 U	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	660 J	550	NA	14 J	29	NA	22 J	29	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	2.6	1.2 U	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	6.3	NA	NA	NA	38 J	NA	33	2.8 J	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	28,000	27,000 J	NA	NA	380 J	NA	250	240	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	0.4 U	NA	0.4 U	0.4 U	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	0.066 J	3.2	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.6 U	NA	NA	NA	1.4	NA	5	0.6 U	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	1.4	NA	NA	NA	1.7	NA	3.6	11	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	15 J	NA	NA	NA	4.4	NA	5	4.2	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	9.5	NA	NA	NA	2.2 J	NA	2.4 J	12	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.58	NA	NA	NA	0.4 U	NA	0.17 J	0.4 U	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	320	NA	NA	NA	1,400 J	NA	3,000	3,400	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	8	NA	NA	NA	11	NA	37	26	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	1.4 U	NA	NA	NA	1.4 U	NA	1.6 J	1.4 U	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	0.4 UJ	NA	0.4 U	0.4 U	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	2.3 J	NA	2	0.8 U	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	660	NA	NA	NA	27	NA	19	17	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-04 09/26/01	RFI-10-04 06/21/02	RFI-10-04 03/26/03	RFI-10-05 09/24/01	RFI-10-05 06/25/02	RFI-10-05 03/26/03	RFI-10-06 09/24/01	RFI-10-06 06/19/02	RFI-10-06 03/26/03	RFI-10-07 11/20/01	RFI-10-07 03/26/03	RFI-10-08 09/26/01	RFI-10-08 06/19/02	RFI-10-11 10/01/01	RFI-10-11 10/03/01	RFI-10-11 06/21/02	RFI-10-11 03/26/03
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	14	7.1 J	NA	580 D	140 D	490 D	640 D	340 D	1,000 D	41	15	1 U	NA	0.77 J	NA	1 UJ	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	NA	1 UJ	NA	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	NA	0.52 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,1-Dichloroethane	ug/L	5.4	2.1	NA	1,100 D	170 D	700 D	230 D	95 D	730 D	7.2 J	2	1 U	NA	1 U	NA	1 U	NA
1,1-Dichloroethene	ug/L	1	0.56 J	NA	110 D	29	90	87	56	130 D	0.86 J	1 U	1 U	NA	1 U	NA	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	NA
1,2-Dibromoethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	NA	1.4	1 U	1.2	0.82 J	1 U	1.8	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 UJ	NA	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	2.4 J	NA
2-Hexanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	NA	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	NA	50 U	NA
Acetone	ug/L	0.63 J	25 U	NA	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA	25 U	NA	25 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1	1 U	2	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Bromoform	ug/L	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	NA
Bromomethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	NA	1 U	NA	1 U	NA
Carbon Disulfide	ug/L	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA
Carbon Tetrachloride	ug/L	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	NA
Chlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Chloroethane	ug/L	1 U	1 U	NA	690 D	270 D	1,000 D	250 D	100	96 D	1 UJ	1 U	1 U	NA	1 U	NA	1 U	NA
Chloroform	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	3.9	1 U	1 U	NA	1 U	NA	1 U	NA
Chloromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	NA	23	3.7	20	1 U	1 U	3	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Cyclohexane	ug/L	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA
Dibromochloromethane	ug/L	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA
m&p-Xylene	ug/L	2 U	2 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	NA	2 U	NA
Methyl acetate	ug/L	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	NA	0.88 J	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	NA	5 U	NA	5 U	NA
Methylcyclohexane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Methylene Chloride	ug/L	5 U	5 U	NA	24	8.7	29	4.2 J	5 UJ	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-04 09/26/01	RFI-10-04 06/21/02	RFI-10-04 03/26/03	RFI-10-05 09/24/01	RFI-10-05 06/25/02	RFI-10-05 03/26/03	RFI-10-06 09/24/01	RFI-10-06 06/19/02	RFI-10-06 03/26/03	RFI-10-07 11/20/01	RFI-10-07 03/26/03	RFI-10-08 09/26/01	RFI-10-08 06/19/02	RFI-10-11 10/01/01	RFI-10-11 10/03/01	RFI-10-11 06/21/02	RFI-10-11 03/26/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	NA	1.2	1 U	1.1	1 U	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	NA	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	3.2	1.4	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
Vinyl Chloride	ug/L	1 U	1 U	NA	26	6.6	33	1.3	0.64 J	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	NA
SVOC																		
1,1'-Biphenyl	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4.7 U	NA	NA	NA	NA	NA	4.2 U	NA	NA	4 U	NA	4.4 U	NA	4 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	12 U	NA	NA	NA	NA	NA	11 U	NA	NA	10 U	NA	11 U	NA	10 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	24 U	NA	NA	NA	NA	NA	21 UJ	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2-Chloronaphthalene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2-Chlorophenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2-Methylnaphthalene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2-Methylphenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
2-Nitroaniline	ug/L	24 U	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
2-Nitrophenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
3&4-Methylphenol	ug/L	12 UJ	NA	NA	NA	NA	NA	11 UJ	NA	NA	10 UJ	NA	11 UJ	NA	10 UJ	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	24 U	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	24 U	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	24 UJ	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 UJ	NA	20 U	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
4-Chloroaniline	ug/L	24 U	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
4-Nitroaniline	ug/L	24 U	NA	NA	NA	NA	NA	21 UJ	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
4-Nitrophenol	ug/L	24 U	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
Acenaphthene	ug/L	5.9 U	NA	NA	NA	NA	NA	0.663 J	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Acenaphthylene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Acetophenone	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Anthracene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Atrazine	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Benzaldehyde	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 UJ	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Benzo(a)anthracene	ug/L	1.2 U	NA	NA	NA	NA	NA	1.1 U	NA	NA	1 U	NA	1.1 U	NA	1 U	NA	NA	NA
Benzo(a)pyrene	ug/L	2.4 U	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.2 U	NA	2 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2.4 U	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.2 U	NA	2 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 UJ	NA	5.5 U	NA	5 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	1.2 U	NA	NA	NA	NA	NA	1.1 U	NA	NA	1 U	NA	1.1 U	NA	1 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Butylbenzylphthalate	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Caprolactam	ug/L	12 U	NA	NA	NA	NA	NA	11 U	NA	NA	10 U	NA	11 U	NA	10 U	NA	NA	NA
Carbazole	ug/L	12 U	NA	NA	NA	NA	NA	11 UJ	NA	NA	10 U	NA	11 U	NA	10 U	NA	NA	NA
Chrysene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2.4 U	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.2 U	NA	2 U	NA	NA	NA
Dibenzofuran	ug/L	4.7 U	NA	NA	NA	NA	NA	4.2 U	NA	NA	4 U	NA	4.4 U	NA	4 U	NA	NA	NA
Diethylphthalate	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-04 09/26/01	RFI-10-04 06/21/02	RFI-10-04 03/26/03	RFI-10-05 09/24/01	RFI-10-05 06/25/02	RFI-10-05 03/26/03	RFI-10-06 09/24/01	RFI-10-06 06/19/02	RFI-10-06 03/26/03	RFI-10-07 11/20/01	RFI-10-07 03/26/03	RFI-10-08 09/26/01	RFI-10-08 06/19/02	RFI-10-11 10/01/01	RFI-10-11 10/03/01	RFI-10-11 06/21/02	RFI-10-11 03/26/03
Dimethylphthalate	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Fluoranthene	ug/L	2.4 U	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.2 U	NA	2 U	NA	NA	NA
Fluorene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Hexachlorobenzene	ug/L	1.2 U	NA	NA	NA	NA	NA	1.1 U	NA	NA	1 U	NA	1.1 U	NA	1 U	NA	NA	NA
Hexachlorobutadiene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Hexachloroethane	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2.4 U	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 UJ	NA	2.2 U	NA	2 U	NA	NA	NA
Isophorone	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Methylphenols, Total	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Naphthalene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Nitrobenzene	ug/L	2.4 U	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.2 U	NA	2 U	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Pentachlorophenol	ug/L	24 U	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	22 U	NA	20 U	NA	NA	NA
Phenanthrene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Phenol	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
Pyrene	ug/L	5.9 U	NA	NA	NA	NA	NA	5.3 U	NA	NA	5.1 U	NA	5.5 U	NA	5 U	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1221	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1232	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1242	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1248	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1254	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1260	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.12 U	NA	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	NA
Inorganic																		
Antimony	ug/L	1.2 U	1.2 U	1.2 U	NA	NA	1.2 U	1.2 U	1.2 U	1.2 U	1.2 UJ	NA	NA	1.2 U	1.2 U	NA	NA	1.2 U
Arsenic	ug/L	4.1 J	1.4	1 U	NA	NA	1.1	3.9 J	2.4 U	1.5	1 U	NA	NA	2.6 U	1.6 U	NA	NA	1 U
Barium	ug/L	880 J	770	1,100	NA	NA	73	160 J	51	50	26 J	NA	NA	64	35 J	NA	NA	70
Beryllium	ug/L	1.7 J	0.4 U	0.4 U	NA	NA	0.4 U	0.23 J	0.4 UJ	0.4 U	0.4 UJ	NA	NA	0.4 UJ	0.4 U	NA	NA	0.4 U
Cadmium	ug/L	2.3 J	0.69	0.89	NA	NA	0.37	0.19 J	0.2 U	0.092 J	0.045 J	NA	NA	0.3	0.26 J	NA	NA	0.51
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	5.4	2.6	9.8	NA	NA	2.1	1.5	1.5	0.86	0.6 U	NA	NA	1.6	3.9	NA	NA	3.1
Cobalt	ug/L	3 J	1.1	1.4	NA	NA	3.7	2.2 J	0.79	0.84	0.19	NA	NA	1.4	0.67 J	NA	NA	1.4
Copper	ug/L	9.5 J	6.2	5.5	NA	NA	4.7	15 J	5.8 J	4.3	1.7 U	NA	NA	8.3 J	2.5 J	NA	NA	2.6
Cyanide (total)	ug/L	10	27	22	NA	NA	18	2.2 J	3.2 J	2.5 J	5 U	NA	1.5 J	5 U	14	27	NA	34
Lead	ug/L	1.2 J	1.9	0.36 J	NA	NA	0.14 J	0.43 J	0.64	0.75	0.4 U	NA	NA	1.1	0.46 J	NA	NA	0.15 J
Manganese	ug/L	290 J	25	240	NA	NA	1,300	1,200 J	250	500	4.8 J	NA	NA	900	220 J	NA	NA	330
Mercury	ug/L	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.123 J	0.2 U	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-04 09/26/01	RFI-10-04 06/21/02	RFI-10-04 03/26/03	RFI-10-05 09/24/01	RFI-10-05 06/25/02	RFI-10-05 03/26/03	RFI-10-06 09/24/01	RFI-10-06 06/19/02	RFI-10-06 03/26/03	RFI-10-07 11/20/01	RFI-10-07 03/26/03	RFI-10-08 09/26/01	RFI-10-08 06/19/02	RFI-10-11 10/01/01	RFI-10-11 10/03/01	RFI-10-11 06/21/02	RFI-10-11 03/26/03
Nickel	ug/L	22 J	11	30	NA	NA	25	14 J	5.7	8.1	2.6 U	NA	NA	7	8.3 J	NA	NA	20
Selenium	ug/L	1.4 U	1.4 U	1.6 UJ	NA	NA	1.9	8.8 J	7.9	1.6 U	6 J	NA	NA	1.4 U	2.2 J	NA	NA	2.9
Silver	ug/L	1 J	0.2 J	1	NA	NA	0.29 J	0.4 U	0.4 U	0.4 U	0.4 UJ	NA	NA	0.4 U	0.4 U	NA	NA	0.4 U
Thallium	ug/L	0.87 U	0.14 J	0.11 J	NA	NA	0.42	0.2 U	0.07 J	0.2 U	0.2 UJ	NA	NA	0.064 J	0.2 U	NA	NA	0.2 U
Vanadium	ug/L	11 J	0.72 J	0.8 U	NA	NA	0.8 U	0.8 U	0.81	0.29 J	0.8 U	NA	NA	1.7	0.27 J	NA	NA	0.8 U
Zinc	ug/L	46 J	34 UJ	27	NA	NA	14	18 J	14 J	13	29 U	NA	NA	38 J	9.1 J	NA	NA	8.9
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	NA	NA	NA	1.2 U	NA	NA	1.2 U	NA	1.2 U	NA	1.2 U	NA	NA	NA
Arsenic (Dissolved)	ug/L	2.2 J	NA	NA	NA	NA	NA	2.3 J	NA	NA	1 U	NA	10	NA	1 U	NA	NA	NA
Barium (Dissolved)	ug/L	590	NA	NA	NA	NA	NA	95 J	NA	NA	28	NA	81	NA	27	NA	NA	NA
Beryllium (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.76	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	0.31	NA	NA	NA
Chromium Total (Dissolved)	ug/L	0.82	NA	NA	NA	NA	NA	0.6 U	NA	NA	0.6 U	NA	0.6 U	NA	1.9	NA	NA	NA
Cobalt (Dissolved)	ug/L	1.1	NA	NA	NA	NA	NA	1.2	NA	NA	0.46	NA	0.77	NA	0.55	NA	NA	NA
Copper (Dissolved)	ug/L	1.7	NA	NA	NA	NA	NA	3.7	NA	NA	1.2 U	NA	0.6 U	NA	2.8 U	NA	NA	NA
Cyanide (dissolved)	ug/L	10	NA	NA	NA	NA	NA	2.4 J	NA	NA	4.4 J	NA	1.9 J	NA	17	NA	NA	NA
Lead (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	NA
Manganese (Dissolved)	ug/L	180 J	NA	NA	NA	NA	NA	750 J	NA	NA	6.8 J	NA	840	NA	230	NA	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	NA
Nickel (Dissolved)	ug/L	12	NA	NA	NA	NA	NA	6.9	NA	NA	2.6 U	NA	4.1	NA	6.3	NA	NA	NA
Selenium (Dissolved)	ug/L	8.5 J	NA	NA	NA	NA	NA	7.5	NA	NA	1.4 U	NA	1.4 U	NA	21	NA	NA	NA
Silver (Dissolved)	ug/L	0.4 UJ	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	NA	NA	NA	NA	NA	0.8 U	NA	NA	0.8 U	NA	0.8 U	NA	0.8 U	NA	NA	NA
Zinc (Dissolved)	ug/L	22	NA	NA	NA	NA	NA	7	NA	NA	6 U	NA	7.6	NA	19	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-11 10/08/04	RFI-10-11 06/05/13	RFI-10-11-ULF 10/01/01	RFI-10-12 09/26/01	RFI-10-12 12/18/02	RFI-10-15 09/24/01	RFI-10-15 10/06/04	RFI-10-24 02/20/02	RFI-10-24 06/25/02	RFI-10-24 03/26/03	RFI-10-24 10/06/04	RFI-10-24 12/08/05	RFI-10-24 06/28/07	RFI-10-24 10/25/07	RFI-10-24 03/20/08	RFI-10-24 06/17/08
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	0.6 J	NA	NA	1 U	NA	2.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	NA	NA	1 U	NA	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	NA	NA	1 U	NA	1 U	30 U	1 U	1 U	1 U	30 U	30 U	30 U	30 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	NA	NA	1 U	NA	3.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	NA	NA	5 U	NA	5 U	2 U	5 U	5 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	NA	NA	1.1 J	NA	25 U	30 U	25 U	25 U	25 U	30 U	30 U	20 U	20 U	20 U	20 U
2-Hexanone	ug/L	50 U	NA	NA	50 U	NA	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	NA	NA	50 U	NA	50 U	1 U	50 U	50 U	50 U	1 U	1 U	10 U	10 U	10 U	10 U
Acetone	ug/L	30 U	NA	NA	7.9 J	NA	25 U	30 U	25 U	25 U	25 U	30 U	30 U	20 U	20 U	20 U	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	NA	NA	2	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 UJ	NA	NA	1 U	NA	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 UJ	NA	NA	1 U	NA	1 U	2 UJ	1 U	1 U	1 U	2 UJ	2 U	2 U	2 U	2 UJ	2 U
Carbon Disulfide	ug/L	5 UJ	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 UJ	NA	NA	120 D	NA	1.8	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U
Chloroform	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
cis-1,2-Dichloroethene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	NA	NA	5 U	NA	5 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 UJ	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	NA	NA	1.3	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	NA	NA	3.4 J	NA	5 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
m&p-Xylene	ug/L	1 U	NA	NA	2.4	NA	2 U	1 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl acetate	ug/L	10 U	NA	NA	5 U	NA	5 U	10 U	5 U	5 U	5 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	NA	NA	0.72 J	NA	1 U	20 U	1 U	1 U	1 U	20 U	20 U	20 U	20 U	20 U	20 U
Methylene Chloride	ug/L	5 U	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	NA	NA	1.6	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-11 10/08/04	RFI-10-11 06/05/13	RFI-10-11-ULF 10/01/01	RFI-10-12 09/26/01	RFI-10-12 12/18/02	RFI-10-15 09/24/01	RFI-10-15 10/06/04	RFI-10-24 02/20/02	RFI-10-24 06/25/02	RFI-10-24 03/26/03	RFI-10-24 10/06/04	RFI-10-24 12/08/05	RFI-10-24 06/28/07	RFI-10-24 10/25/07	RFI-10-24 03/20/08	RFI-10-24 06/17/08
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	13 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	25 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	13 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	1.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	2.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	13 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	13 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-11 10/08/04	RFI-10-11 06/05/13	RFI-10-11-ULF 10/01/01	RFI-10-12 09/26/01	RFI-10-12 12/18/02	RFI-10-15 09/24/01	RFI-10-15 10/06/04	RFI-10-24 02/20/02	RFI-10-24 06/25/02	RFI-10-24 03/26/03	RFI-10-24 10/06/04	RFI-10-24 12/08/05	RFI-10-24 06/28/07	RFI-10-24 10/25/07	RFI-10-24 03/20/08	RFI-10-24 06/17/08
Dimethylphthalate	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	2.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	1.18 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	1.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	2.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	6.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	1.3 U	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	1.5 J	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	65 J	NA	50 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	0.4 U	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	0.85 J	NA	0.16 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	4 J	NA	9.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	2 J	NA	1.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	14 J	NA	13 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5	27	3.6 J	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	1.1 J	NA	6.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	710 J	NA	1,200 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-11 10/08/04	RFI-10-11 06/05/13	RFI-10-11-ULF 10/01/01	RFI-10-12 09/26/01	RFI-10-12 12/18/02	RFI-10-15 09/24/01	RFI-10-15 10/06/04	RFI-10-24 02/20/02	RFI-10-24 06/25/02	RFI-10-24 03/26/03	RFI-10-24 10/06/04	RFI-10-24 12/08/05	RFI-10-24 06/28/07	RFI-10-24 10/25/07	RFI-10-24 03/20/08	RFI-10-24 06/17/08
Nickel	ug/L	NA	NA	19 J	NA	35 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	1.4 U	NA	1.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	1.9 J	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	0.046 J	NA	0.21 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	0.25 J	NA	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	10 J	NA	33 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	68	44 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	150	66 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	1.7	3.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	0.71	1.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	0.6 U	2.6 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	3.8 J	4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	0.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	2,000 J	1,000 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	20	23 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	6.6 J	4.6 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	2.1	2.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	7.6	6.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.495	0.896
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	23.7
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.9	7.3
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40	60
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.73	11.1
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01	1.23
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,810	1,980

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-24 09/15/08	RFI-10-24 12/03/08	RFI-10-24 10/14/10	RFI-10-24 10/24/11	RFI-10-24 11/08/12	RFI-10-25 02/20/02	RFI-10-25 03/26/03	RFI-10-25 10/06/04	RFI-10-26 02/21/02	RFI-10-26 06/20/02	RFI-10-26 03/27/03	RFI-10-26 11/02/06	RFI-10-26 10/26/07	RFI-10-26 09/15/08	RFI-10-26 10/14/10	RFI-10-26 10/24/11	RFI-10-26 11/07/12
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	4	1 U	1 U	1 U	1 U	1 U	NA	1 U	2	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	NA	30 U	30 U	1 U	1 U	30 U	1 U	1 U	NA	30 U	30 U	30 U	NA	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	4	41	9	9	1 U	1 U	1 U	4.2	1 U	NA	1 U	0.2 J	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	3	1	1	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	5 U	2 U	2 U	5 U	5 U	2 U	5 U	5 U	NA	2 U	2 U	2 U	5 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 UJ	30 U	20 U	20 U	25 U	25 U	30 U	25 U	25 U	NA	20 U	20 U	20 U	30 U	20 U	20 U
2-Hexanone	ug/L	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 UJ	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	50 U	10 U	10 U	50 U	50 U	1 U	50 U	50 U	NA	10 U	10 U	10 U	50 U	10 U	10 U
Acetone	ug/L	20 U	20 UJ	50 U	20 U	20 U	25 U	25 U	30 U	25 U	25 U	NA	20 U	20 U	20 U	50 U	20 U	20 U
Acrylonitrile	ug/L	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Bromochloromethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U	2 U	5 U	2 U	2 U	1 U	1 U	2 UJ	1 U	1 U	NA	2 U	2 U	2 U	5 U	2 U	2 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	18	16	8	1	2	1 U	1 U	1 UJ	21	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5.6	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 UJ	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 UJ	1 U	NA	1 U	1 U	5 U	5 U	1 U	5 U	5 U	NA	1 U	1 U	1 UJ	NA	1 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Iodomethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	5 U	1 U	1 U	5 U	5 U	1 U	5 U	5 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
m&p-Xylene	ug/L	1 U	1 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U	NA	1 U	1 U	1 U	2 U	2 U	2 U
Methyl acetate	ug/L	10 U	10 U	NA	10 U	10 U	5 U	5 UJ	10 UJ	5 U	5 U	NA	10 U	10 U	10 U	NA	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U	NA	20 U	20 U	1 U	1 UJ	20 U	1 U	1 U	NA	20 U	20 U	20 U	NA	20 U	20 U
Methylene Chloride	ug/L	5 U	0.3 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
n-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
n-Propylbenzene	ug/L	NA	NA	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
sec-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-24 09/15/08	RFI-10-24 12/03/08	RFI-10-24 10/14/10	RFI-10-24 10/24/11	RFI-10-24 11/08/12	RFI-10-25 02/20/02	RFI-10-25 03/26/03	RFI-10-25 10/06/04	RFI-10-26 02/21/02	RFI-10-26 06/20/02	RFI-10-26 03/27/03	RFI-10-26 11/02/06	RFI-10-26 10/26/07	RFI-10-26 09/15/08	RFI-10-26 10/14/10	RFI-10-26 10/24/11	RFI-10-26 11/07/12
tert-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-24 09/15/08	RFI-10-24 12/03/08	RFI-10-24 10/14/10	RFI-10-24 10/24/11	RFI-10-24 11/08/12	RFI-10-25 02/20/02	RFI-10-25 03/26/03	RFI-10-25 10/06/04	RFI-10-26 02/21/02	RFI-10-26 06/20/02	RFI-10-26 03/27/03	RFI-10-26 11/02/06	RFI-10-26 10/26/07	RFI-10-26 09/15/08	RFI-10-26 10/14/10	RFI-10-26 10/24/11	RFI-10-26 11/07/12
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3	1 U	NA	NA	NA	NA	2 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	52	130	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13 J	0.28	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2	3.6	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1	1.1	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.4	2.8	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	28	4.9 J	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.8	0.36 J	NA	NA	NA	NA	8	3 U
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	15	NA	NA	NA	NA	14	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.255	0.2 U	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-24 09/15/08	RFI-10-24 12/03/08	RFI-10-24 10/14/10	RFI-10-24 10/24/11	RFI-10-24 11/08/12	RFI-10-25 02/20/02	RFI-10-25 03/26/03	RFI-10-25 10/06/04	RFI-10-26 02/21/02	RFI-10-26 06/20/02	RFI-10-26 03/27/03	RFI-10-26 11/02/06	RFI-10-26 10/26/07	RFI-10-26 09/15/08	RFI-10-26 10/14/10	RFI-10-26 10/24/11	RFI-10-26 11/07/12
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.1	12	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	5.9	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 J	0.2 U	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1	0.8 U	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 UJ	11	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	7.2	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	0.767	0.67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.241	NA	NA	NA
ORP, Field	millivolts	66.3	48.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	116.8	NA	NA	NA
pH Field	s.u.	7.19	6.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.72	NA	NA	NA
Temperature, Ambient	deg f	65	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65	NA	NA	NA
Temperature, Field	Deg C	14.9	10.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.27	NA	NA	NA
Turbidity (Field)	NTU	0.79	1.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.47	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	920	1,490	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-26 06/05/13	RFI-10-28 12/12/02	RFI-10-28 10/06/04	RFI-10-28 12/08/05	RFI-10-28 10/25/07	RFI-10-28 03/27/08	RFI-10-28 06/18/08	RFI-10-28 09/17/08	RFI-10-28 12/03/08	RFI-10-29 12/12/02	RFI-10-29 06/30/05	RFI-10-29 12/08/05	RFI-10-29 06/28/07	RFI-10-29 10/25/07	RFI-10-29 03/20/08	RFI-10-29 06/17/08
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	3 U	30 U [30 U]	30 U	30 U	30 U	30 U	30 U	30 U	3 U	30 U	30 U	30 U	30 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	11 J	30 U [30 U]	30 U	20 U	20 U	20 U	20 U	20 UJ	25 U	30 U	30 U	20 U	20 U	20 U	20 U
2-Hexanone	ug/L	NA	50 U	50 UJ [50 UJ]	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	1 U [1 U]	1 U	10 U	10 U	10 U	10 U	10 U	50 U	1 U	1 U	10 U	10 U	10 U	10 U
Acetone	ug/L	NA	210 JD	30 U [30 U]	30 U	20 U	20 U	20 U	20 U	20 UJ	1.9 J	30 U	30 U	20 U	20 U	20 U	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	NA	1 U	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	NA	1 UJ	2 UJ [2 UJ]	2 U	2 U	2 UJ	2 UJ	2 UJ	2 U	1 UJ	2 U	2 U	2 U	2 U	2 UJ	2 U
Carbon Disulfide	ug/L	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	NA	1 U	1 UJ [1 UJ]	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Chloroform	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
cis-1,2-Dichloroethene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	NA	3 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
m&p-Xylene	ug/L	NA	2 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.1 J	1 U	1 U
Methyl acetate	ug/L	NA	3 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	3 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	ug/L	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	NA	3 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 U	3 U	20 U	20 U	20 U	20 U	20 U	20 U
Methylene Chloride	ug/L	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-26 06/05/13	RFI-10-28 12/12/02	RFI-10-28 10/06/04	RFI-10-28 12/08/05	RFI-10-28 10/25/07	RFI-10-28 03/27/08	RFI-10-28 06/18/08	RFI-10-28 09/17/08	RFI-10-28 12/03/08	RFI-10-29 12/12/02	RFI-10-29 06/30/05	RFI-10-29 12/08/05	RFI-10-29 06/28/07	RFI-10-29 10/25/07	RFI-10-29 03/20/08	RFI-10-29 06/17/08
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	0.1 J	1 U	1 U	0.51 J	1 U	1 U	1 U	1 U	1 U	0.1 J
trans-1,2-Dichloroethene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-26 06/05/13	RFI-10-28 12/12/02	RFI-10-28 10/06/04	RFI-10-28 12/08/05	RFI-10-28 10/25/07	RFI-10-28 03/27/08	RFI-10-28 06/18/08	RFI-10-28 09/17/08	RFI-10-28 12/03/08	RFI-10-29 12/12/02	RFI-10-29 06/30/05	RFI-10-29 12/08/05	RFI-10-29 06/28/07	RFI-10-29 10/25/07	RFI-10-29 03/20/08	RFI-10-29 06/17/08
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-26 06/05/13	RFI-10-28 12/12/02	RFI-10-28 10/06/04	RFI-10-28 12/08/05	RFI-10-28 10/25/07	RFI-10-28 03/27/08	RFI-10-28 06/18/08	RFI-10-28 09/17/08	RFI-10-28 12/03/08	RFI-10-29 12/12/02	RFI-10-29 06/30/05	RFI-10-29 12/08/05	RFI-10-29 06/28/07	RFI-10-29 10/25/07	RFI-10-29 03/20/08	RFI-10-29 06/17/08
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	0.618	0.552	0.788	0.429	NA	NA	NA	NA	NA	0.385	0.502
ORP, Field	millivolts	NA	NA	NA	NA	NA	166	194.6	63	171.7	NA	NA	NA	NA	NA	89.7	209.4 -
pH Field	s.u.	NA	NA	NA	NA	NA	7	6.97	6.91	6.88	NA	NA	NA	NA	NA	7.32	6.94
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	30	65	60	30	NA	NA	NA	NA	NA	40	60
Temperature, Field	Deg C	NA	NA	NA	NA	NA	6.87	11.01	17.44	10.47	NA	NA	NA	NA	NA	6.65	10.98
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	0.03	2.36	0.68	0.32	NA	NA	NA	NA	NA	1.07	1.29
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	3,400	2,360	380	3,030	NA	NA	NA	NA	NA	2,290	860

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-29 09/17/08	RFI-10-29 12/03/08	RFI-10-29 10/14/10	RFI-10-29 10/24/11	RFI-10-29 11/08/12	RFI-10-30 04/24/03	RFI-10-30 10/07/04	RFI-10-31 04/24/03	RFI-10-31 10/07/04	RFI-10-32 04/04/05	RFI-10-32 06/09/05	RFI-10-32 06/07/13	RFI-10-33 06/29/05	RFI-10-33 12/08/05	RFI-10-33 10/25/07	RFI-10-33 03/20/08	RFI-10-33 06/18/08
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	8.7	0.4 J	187	258	36	19	63	76 [76]	9	18
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	NA	30 U	30 U	1 U	30 U	1 U	30 U	30 U	200 U	30 U	30 U	30 U	30 U [30 U]	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7	1 U	140	253	111	21	60	68 [73]	5	12
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	26	33	10	4	10	11 [12]	1	3
1,2,3-Trichlorobenzene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	5 U	2 U	2 U	5 U	2 U	5 U	2 U	2 U	10 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 UJ	30 U	20 U	20 U	25 U	30 U	0.68 J	30 U	30 U	100 U	20 U	30 U	30 U	20 U [20 U]	20 U	20 U
2-Hexanone	ug/L	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	300 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	50 U	10 U	10 U	50 U	1 U	50 U	1 U	1 U	5 U	10 U	1 U	1 U	10 U [10 U]	10 U	10 U
Acetone	ug/L	20 U	20 UJ	50 U	20 U	20 U	1.4 J	30 U	3.8 J	30 U	30 U	100 U	20 U	30 U	30 U	20 U [20 U]	20 U	20 U
Acrylonitrile	ug/L	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 J	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Bromobenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Bromomethane	ug/L	2 UJ	2 U	5 U	2 U	2 U	1 U	2 UJ	1 U	2 UJ	R	10 U	2 U	2 U	2 U	2 U [2 U]	2 UJ	2 UJ
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	30 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Chloroethane	ug/L	1 UJ	1 U	5 U	1 U	1 U	1 U	1 UJ	4.3	1 UJ	67 J	110 J	33	4	5	3 [4]	1 UJ	1 UJ
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Chloromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	3 J	6	1 U	1 U	0.4 J [0.4 J]	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	NA	1 U	1 U	5 U	1 U	5 U	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Dibromomethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	5 U	1 U	1 UJ	1 U	1 U [1 U]	1 U	1 U
Diethyl ether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Hexachloroethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
m&p-Xylene	ug/L	1 U	1 U	2 U	2 U	2 U	2 U	1 U	2 U	1 U	1 U	5 U	2 U	1 U	1 U	1 U [1 U]	1 U	1 U
Methyl acetate	ug/L	10 U	10 U	NA	10 U	10 U	5 U	10 U	5 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U	NA	20 U	20 U	1 U	20 U	1 U	20 U	20 UJ	100 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U
Naphthalene	ug/L	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-29 09/17/08	RFI-10-29 12/03/08	RFI-10-29 10/14/10	RFI-10-29 10/24/11	RFI-10-29 11/08/12	RFI-10-30 04/24/03	RFI-10-30 10/07/04	RFI-10-31 04/24/03	RFI-10-31 10/07/04	RFI-10-32 04/04/05	RFI-10-32 06/09/05	RFI-10-32 06/07/13	RFI-10-33 06/29/05	RFI-10-33 12/08/05	RFI-10-33 10/25/07	RFI-10-33 03/20/08	RFI-10-33 06/18/08
tert-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	5 U	2	1 U	1 U	1 U [1 U]	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-29 09/17/08	RFI-10-29 12/03/08	RFI-10-29 10/14/10	RFI-10-29 10/24/11	RFI-10-29 11/08/12	RFI-10-30 04/24/03	RFI-10-30 10/07/04	RFI-10-31 04/24/03	RFI-10-31 10/07/04	RFI-10-32 04/04/05	RFI-10-32 06/09/05	RFI-10-32 06/07/13	RFI-10-33 06/29/05	RFI-10-33 12/08/05	RFI-10-33 10/25/07	RFI-10-33 03/20/08	RFI-10-33 06/18/08
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	1.2 U	NA	0.38 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	1 U	NA	1.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	40	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	0.088 J	NA	0.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	4.6	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	0.45	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	1.7	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	2.3 J	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	0.13 J	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	100	NA	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Nickel	ug/L	NA	NA	NA	NA	NA	4.8	NA	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	4.7	NA	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	0.4 UJ	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	0.082 J	NA	0.08 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	0.8 U	NA	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	5.1 J	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	0.356	0.392	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.267	0.313
ORP, Field	millivolts	0.7	116 -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	94.1	124.1
pH Field	s.u.	6.81	6.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.35	7.04
Temperature, Ambient	deg f	60	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40	55
Temperature, Field	Deg C	13.97	11.28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.84	11.63
Turbidity (Field)	NTU	1.18	0.63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.23	0.82
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	980	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,970	1,550

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,1,1-Trichloroethane	ug/L	25	96	45	18	44	61	1	1 U	3	1	0.2 J	0.6 J	0.9 J [0.7 J]	2	6	13	12
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	NA	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U [30 U]	30 U	30 U	30 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	21	67	29	9	21	35	1 U	1 U	15	31	29	38	36 [35]	29	45	48	21
1,1-Dichloroethene	ug/L	4	15	6	2	6	10	1 U	1 U	1	2	2	4	3 [3]	3	4	5	3
1,2,3-Trichlorobenzene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
1,2,3-Trichloropropane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,3-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 UJ	30 U	20 U	20 U	20 U	20 U	30 U	30 U	30 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 UJ	30 U
2-Hexanone	ug/L	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 UJ	50 UJ	50 U
2-Methylnaphthalene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	50 U	10 U	10 U	10 U	10 U	1 U	1 U	1 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	50 U
Acetone	ug/L	20 U	20 UJ	50 U	20 U	20 U	20 U	20 U	30 U	30 U	30 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 UJ	50 U
Acrylonitrile	ug/L	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromochloromethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 UJ	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ [2 UJ]	2 U	2 UJ	2 U	5 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 J	3	5 U	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ [1 UJ]	1 U	1 UJ	1 U	5 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 UJ	1 U	1 U	5 U
cis-1,2-Dichloroethene	ug/L	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J [0.2 J]	1 U	0.2 J	0.5 J	1
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	NA
Dibromochloromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5 U
Dibromomethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Dichlorodifluoromethane	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5 U
Diethyl ether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Iodomethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Isopropylbenzene	ug/L	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	5 U
m&p-Xylene	ug/L	1 U	1 U	2 U	2 U	2 U	2 U	2 U	1 U	1 U	1 U	0.1 J	1 U	1 U [1 U]	1 U	1 U	1 U	2 U
Methyl acetate	ug/L	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
n-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
n-Propylbenzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
sec-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-33 09/17/08	RFI-10-33 12/03/08	RFI-10-33 10/14/10	RFI-10-33 10/24/11	RFI-10-33 11/08/12	RFI-10-33 11/14/12	RFI-10-33 06/07/13	RFI-10-34 06/29/05	RFI-10-35 06/29/05	RFI-10-35 12/08/05	RFI-10-35 06/28/07	RFI-10-35 10/25/07	RFI-10-35 03/27/08	RFI-10-35 06/17/08	RFI-10-35 09/17/08	RFI-10-35 12/03/08	RFI-10-35 10/14/10
tert-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-33 09/17/08	RFI-10-33 12/03/08	RFI-10-33 10/14/10	RFI-10-33 10/24/11	RFI-10-33 11/08/12	RFI-10-33 11/14/12	RFI-10-33 06/07/13	RFI-10-34 06/29/05	RFI-10-35 06/29/05	RFI-10-35 12/08/05	RFI-10-35 06/28/07	RFI-10-35 10/25/07	RFI-10-35 03/27/08	RFI-10-35 06/17/08	RFI-10-35 09/17/08	RFI-10-35 12/03/08	RFI-10-35 10/14/10
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-33 09/17/08	RFI-10-33 12/03/08	RFI-10-33 10/14/10	RFI-10-33 10/24/11	RFI-10-33 11/08/12	RFI-10-33 11/14/12	RFI-10-33 06/07/13	RFI-10-34 06/29/05	RFI-10-35 06/29/05	RFI-10-35 12/08/05	RFI-10-35 06/28/07	RFI-10-35 10/25/07	RFI-10-35 03/27/08	RFI-10-35 06/17/08	RFI-10-35 09/17/08	RFI-10-35 12/03/08	RFI-10-35 10/14/10
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	0.487	0.267	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.992	0.955	0.56	0.611	NA
ORP, Field	millivolts	53	54.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	174	38.5	93.5	23.8	NA
pH Field	s.u.	6.89	7.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.88	7.22	6.85	6.75	NA
Temperature, Ambient	deg f	60	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	60	60	30	NA
Temperature, Field	Deg C	15.26	11.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.75	11.9	14.96	12.38	NA
Turbidity (Field)	NTU	0.55	1.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.02	2.81	0.91	1.21	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	3,000	3,260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,990	2,880	3,420	2,470	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-35 10/24/11	RFI-10-35 11/08/12	RFI-10-36 06/29/05	RFI-10-36 12/08/05	RFI-10-36 06/28/07	RFI-10-36 10/25/07	RFI-10-36 03/20/08	RFI-10-36 06/17/08	RFI-10-36 09/15/08	RFI-10-36 12/03/08	RFI-10-36 10/14/10	RFI-10-37 11/09/12	RFI-10-37 06/05/13	RFI-12-11S 09/19/01	RFI-12-11S 06/25/02	RFI-12-15 09/18/01
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	11	11	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	NA	30 U	200 UY	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	8	8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	17 [16]	1 U	5 UY	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	2	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U [5 U]	2 U	10 UY	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U [5 U]	1 U	5 UY	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 UJ	30 U [30 U]	20 U	100 UY	25 U	1.7 J	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U [50 U]	50 U	300 UY	50 U	50 U	1.2 J
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U [50 U]	10 U	50 UY	50 U	50 U	0.89 J
Acetone	ug/L	20 U	20 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 UJ	50 U [50 U]	20 U	100 UY	25 U	7.8 J	26
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	2
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	5 U [5 U]	2 U	10 UY	1 U	1 U	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	30 UY	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	9	1 UJ	1 U	4	1 U	23 [15]	1 U	5 UY	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	5 U [5 U]	1 U	5 UY	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	4	17 Y	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	NA	1 U	5 UY	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U [5 U]	1 U	5 UY	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U [5 U]	1 U	5 UY	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1.3
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U [5 U]	1 U	5 UY	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	2 U [2 U]	2 U	10 UY	2 U	2 U	2.2
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	10 U	50 UY	5 U	5 U	2.5 J
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	30 UY	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	20 U	100 UY	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	30 UY	5 U	5 U	5 U
Naphthalene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	5 U	30 UY	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	1 U	5 UY	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1.5
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-10-35 10/24/11	RFI-10-35 11/08/12	RFI-10-36 06/29/05	RFI-10-36 12/08/05	RFI-10-36 06/28/07	RFI-10-36 10/25/07	RFI-10-36 03/20/08	RFI-10-36 06/17/08	RFI-10-36 09/15/08	RFI-10-36 12/03/08	RFI-10-36 10/14/10	RFI-10-37 11/09/12	RFI-10-37 06/05/13	RFI-12-11S 09/19/01	RFI-12-11S 06/25/02	RFI-12-15 09/18/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U [90 U]	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	3.8
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	175	171 Y	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 UY	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2	5 UY	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U	NA	4.2 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	11 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 UJ	NA	21 UJ
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	3.11 J
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	2.15 J
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	NA	4.49 J
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	NA	R
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1.1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	2.1 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	2.1 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1.1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	11 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	1.23 J
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	2.1 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U	NA	4.2 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	2.1 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	1.1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	2.1 U
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	2.15 J
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	40.5
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	2.1 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	21 U
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	0.853 J
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	4.02 J
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	5.3 U
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.046 J	NA	0.11 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.046 J	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.026 J	NA	0.11 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.11 U
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.026 J	NA	0.11 U
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 J	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.68	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.9	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.43	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	740 J	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U

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Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 J	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33 J	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	1.2 U
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	3.4
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180	NA	14
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6 U	NA	0.6 U
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.81	NA	0.2 U
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	NA	23
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 UJ	NA	5 UJ
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	310	NA	0.4 U
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.8	NA	1.5
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 J	NA	1.5 J
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	0.4 UJ
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	3.9
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28	NA	6.9
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	0.435	0.53	0.74	0.462	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	180	29.7	97.1	54.6	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	6.86	6.79	7.17	6.52	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	40	60	65	30	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	6.95	10.89	14.22	10.78	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	0.03	0.85	1.25	0.63	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	1,450	2,090	5,030	5,200	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-12-15 12/16/02	RFI-12-21 12/06/01	RFI-12-24 04/04/03	RFI-12-24 04/23/03	RFI-12-24 04/06/05	RFI-12-25 04/23/03	RFI-12-32 10/04/04	RFI-12-32 11/01/06	RFI-12-32 03/18/08	RFI-12-32 09/11/08	RFI-12-33 04/07/05	RFI-12-35 09/17/03	RFI-12-35 10/14/03	RFI-12-42 10/27/11	RFI-12-42 11/09/12	RFI-16-01 08/14/01	RFI-16-01 09/20/01
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	30 U	30 U	30 U	30 U	NA	1 U	NA	30 U	30 U	1 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1.8	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	NA	5 U	2 U	2 U	2 UJ	2 U	NA	5 U	NA	2 U	2 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2-Dibromo-3-chloropropane	ug/L	1 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	35 J	25 U	25 U	1.5 J	NA	1.5 J	30 U	20 U	20 U	20 U	NA	8.5 J	NA	20 U	20 U	30 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 UJ	NA	50 U	NA	50 U	50 U	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	0.87 J	50 U	50 U	50 U	NA	50 U	1 U	10 U	10 U	10 U	NA	50 U	NA	10 U	10 U	50 U	NA
Acetone	ug/L	220 D	25 U	25 U	8.2 J	NA	6.2 J	30 U	20 U	20 U	20 U	NA	20 J	NA	20 U	20 U	6.3 J	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	2.7	1 U	1 U	0.62 J	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Bromoform	ug/L	1 UJ	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U	1 U	NA	1 UJ	NA	1 U	1 U	1 U	NA
Bromomethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	2 UJ	2 U	2 U	2 U	NA	1 U	NA	2 U	2 U	1 UJ	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	NA	5 UJ	NA	5 U	5 U	5 U	NA
Carbon Tetrachloride	ug/L	1 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Chloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Chloromethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 UJ	NA	1 U	1 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Cyclohexane	ug/L	5 U	5 U	5 U	5 U	NA	5 U	1 U	1 UJ	1 U	1 UJ	NA	15	NA	1 U	1 U	5 U	NA
Dibromochloromethane	ug/L	1 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	33 J	2.8	3.9	NA	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	NA	1 U	1 U	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1.5	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	NA	5 U	1 U	1 U	1 U	1 U	NA	3.8 J	NA	1 U	1 U	5 U	NA
m&p-Xylene	ug/L	2.1	2 U	2 U	2 U	NA	2 U	1 U	1 U	1 U	1 U	NA	0.85 J	NA	2 U	2 U	2 U	NA
Methyl acetate	ug/L	23	5 U	5 U	5 U	NA	5 U	10 U	10 U	10 U	10 U	NA	5 UJ	NA	10 U	10 U	5 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	NA	5 UJ	NA	5 U	5 U	5 U	NA
Methylcyclohexane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	20 U	20 U	20 UJ	20 U	NA	11	NA	20 U	20 U	1 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	NA	5 UJ	NA	5 U	5 U	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	23	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA
o-Xylene	ug/L	1.6	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	0.58 J	NA	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA

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tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 UJ	NA	1 U	1 U	1 UJ	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	5.7	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U	2	2	1 U	2	NA	1 U	NA	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	NA
SVOC																		
1,1'-Biphenyl	ug/L	NA	5 U	5.6 U	5 U	0.1 J	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U	4.4 U	4 U	5 U	4 U	NA	NA	NA	NA	5 U	NA	4.3 U	NA	NA	4.2 U	NA
2,4-Dichlorophenol	ug/L	NA	10 U	11 U	10 U	10 U	10 U	NA	NA	NA	NA	10 U	NA	11 U	NA	NA	11 U	NA
2,4-Dimethylphenol	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2,4-Dinitrophenol	ug/L	NA	20 U	22 U	20 U	20 UJ	20 U	NA	NA	NA	NA	20 UJ	NA	22 U	NA	NA	21 U	NA
2,4-Dinitrotoluene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2,6-Dinitrotoluene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2-Chloronaphthalene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2-Chlorophenol	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2-Methylnaphthalene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2-Methylphenol	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
2-Nitroaniline	ug/L	NA	20 U	22 U	20 U	20 U	20 U	NA	NA	NA	NA	20 U	NA	22 U	NA	NA	21 U	NA
2-Nitrophenol	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
3&4-Methylphenol	ug/L	NA	10 UJ	11 UJ	10 UJ	NA	10 UJ	NA	NA	NA	NA	NA	NA	11 UJ	NA	NA	11 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	22 UJ	20 UJ	20 U	20 UJ	NA	NA	NA	NA	20 U	NA	22 U	NA	NA	21 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	22 U	20 UJ	20 U	20 UJ	NA	NA	NA	NA	20 U	NA	22 U	NA	NA	21 UJ	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	22 U	20 U	20 UJ	20 U	NA	NA	NA	NA	20 UJ	NA	22 U	NA	NA	21 U	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
4-Chloroaniline	ug/L	NA	20 U	22 UJ	20 U	20 U	20 U	NA	NA	NA	NA	20 U	NA	22 U	NA	NA	21 UJ	NA
4-Chlorophenyl-phenylether	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
4-Nitroaniline	ug/L	NA	20 U	22 U	20 UJ	20 U	20 UJ	NA	NA	NA	NA	20 U	NA	22 U	NA	NA	21 UJ	NA
4-Nitrophenol	ug/L	NA	20 U	22 U	20 U	20 UJ	20 U	NA	NA	NA	NA	20 UJ	NA	22 U	NA	NA	21 UJ	NA
Acenaphthene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	0.3 J	NA	5.4 U	NA	NA	5.3 U	NA
Acenaphthylene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Acetophenone	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Anthracene	ug/L	NA	5 U	5.6 U	5 U	0.2 J	5 U	NA	NA	NA	NA	0.1 J	NA	5.4 U	NA	NA	5.3 U	NA
Atrazine	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 UJ	NA
Benzaldehyde	ug/L	NA	5 U	5.6 UJ	5 UJ	5 U	5 UJ	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	1.11 J	NA
Benzo(a)anthracene	ug/L	NA	1 U	1.1 U	1 U	5 U	1 U	NA	NA	NA	NA	5 U	NA	1.1 U	NA	NA	1.1 U	NA
Benzo(a)pyrene	ug/L	NA	2 U	2.2 U	2 U	5 U	2 U	NA	NA	NA	NA	5 U	NA	2.2 U	NA	NA	2.1 UJ	NA
Benzo(b)fluoranthene	ug/L	NA	2 U	2.2 U	2 U	5 U	2 U	NA	NA	NA	NA	5 U	NA	2.2 U	NA	NA	2.1 UJ	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U	5.6 U	5 UJ	5 U	5 UJ	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 UJ	NA
Benzo(k)fluoranthene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 UJ	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U	1.7 U	1.5 U	5 U	1.5 U	NA	NA	NA	NA	5 U	NA	1.6 U	NA	NA	1.1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Butylbenzylphthalate	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Caprolactam	ug/L	NA	10 U	11 U	10 U	10 UJ	10 U	NA	NA	NA	NA	10 UJ	NA	11 U	NA	NA	11 U	NA
Carbazole	ug/L	NA	10 U	11 U	10 U	0.2 J	10 U	NA	NA	NA	NA	10 U	NA	11 U	NA	NA	11 UJ	NA
Chrysene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U	2.2 U	2 UJ	5 U	2 UJ	NA	NA	NA	NA	5 U	NA	2.2 U	NA	NA	2.1 UJ	NA
Dibenzofuran	ug/L	NA	4 U	4.4 U	4 U	0.1 J	4 U	NA	NA	NA	NA	0.3 J	NA	4.3 U	NA	NA	4.2 U	NA
Diethylphthalate	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-12-15 12/16/02	RFI-12-21 12/06/01	RFI-12-24 04/04/03	RFI-12-24 04/23/03	RFI-12-24 04/06/05	RFI-12-25 04/23/03	RFI-12-32 10/04/04	RFI-12-32 11/01/06	RFI-12-32 03/18/08	RFI-12-32 09/11/08	RFI-12-33 04/07/05	RFI-12-35 09/17/03	RFI-12-35 10/14/03	RFI-12-42 10/27/11	RFI-12-42 11/09/12	RFI-16-01 08/14/01	RFI-16-01 09/20/01
Dimethylphthalate	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Di-n-Butylphthalate	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Di-n-Octylphthalate	ug/L	NA	5 U	5.6 U	5 UJ	5 U	5 UJ	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 UJ	NA
Fluoranthene	ug/L	NA	2 U	2.2 U	2 U	5 U	2 U	NA	NA	NA	NA	5 U	NA	2.2 U	NA	NA	2.1 U	NA
Fluorene	ug/L	NA	5 U	5.6 U	5 U	0.2 J	5 U	NA	NA	NA	NA	0.5 J	NA	5.4 U	NA	NA	5.3 U	NA
Hexachlorobenzene	ug/L	NA	1 U	1.1 U	1 U	5 U	1 U	NA	NA	NA	NA	5 U	NA	1.1 U	NA	NA	1.1 U	NA
Hexachlorobutadiene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U	5.6 U	5 U	5 UJ	5 U	NA	NA	NA	NA	5 UJ	NA	5.4 U	NA	NA	5.3 UJ	NA
Hexachloroethane	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U	2.2 U	2 UJ	5 U	2 UJ	NA	NA	NA	NA	5 U	NA	2.2 U	NA	NA	2.1 UJ	NA
Isophorone	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Methylphenols, Total	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Naphthalene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	0.2 J	NA	5.4 U	NA	NA	5.3 U	NA
Nitrobenzene	ug/L	NA	2 U	2.2 U	2 U	5 U	2 U	NA	NA	NA	NA	5 U	NA	2.2 U	NA	NA	2.1 U	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Pentachlorophenol	ug/L	NA	20 U	22 UJ	20 U	1 U	20 U	NA	NA	NA	NA	1 U	NA	22 U	NA	NA	21 U	NA
Phenanthrene	ug/L	NA	5 U	5.6 U	5 U	0.2 J	5 U	NA	NA	NA	NA	0.1 J	NA	5.4 U	NA	NA	5.3 U	NA
Phenol	ug/L	NA	5 U	9.82	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
Pyrene	ug/L	NA	5 U	5.6 U	5 U	5 U	5 U	NA	NA	NA	NA	5 U	NA	5.4 U	NA	NA	5.3 U	NA
PCB																		
Aroclor-1016	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1221	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1232	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1242	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1248	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1254	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1260	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	0.11 U	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Total PCBs (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	0.12 U	NA
Inorganic																		
Antimony	ug/L	NA	1.2 U	0.38 J	1.1 J	NA	0.39 J	NA	NA	NA	NA	NA	4.3 J	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	7.2	2.3	1.8	NA	1.6 J	NA	NA	NA	NA	NA	60 J	NA	NA	NA	NA	NA
Barium	ug/L	NA	160	59	57	NA	150	NA	NA	NA	NA	NA	610	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	0.4 U	0.8 U	0.4 U	NA	0.4 U	NA	NA	NA	NA	NA	270 JDM	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	0.069 J	0.43	0.64	NA	0.12 J	NA	NA	NA	NA	NA	6.7 J	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	1.8	1.4	0.65	NA	1.1	NA	NA	NA	NA	NA	120	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	4.6	19	24	NA	1.8	NA	NA	NA	NA	NA	46	NA	NA	NA	NA	NA
Copper	ug/L	NA	4.4	7.5	4.9	NA	4.6	NA	NA	NA	NA	NA	89	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5 U	4.6 J	5 U	NA	5 U	NA	NA	NA	NA	NA	15	NA	NA	NA	NA	3 J
Lead	ug/L	NA	0.14 J	2.6	1.5	NA	1.5	NA	NA	NA	NA	NA	59	NA	NA	NA	NA	NA
Manganese	ug/L	NA	310	740 J	890	NA	400	NA	NA	NA	NA	NA	2,100	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	0.0437 J	NA	NA	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-12-15 12/16/02	RFI-12-21 12/06/01	RFI-12-24 04/04/03	RFI-12-24 04/23/03	RFI-12-24 04/06/05	RFI-12-25 04/23/03	RFI-12-32 10/04/04	RFI-12-32 11/01/06	RFI-12-32 03/18/08	RFI-12-32 09/11/08	RFI-12-33 04/07/05	RFI-12-35 09/17/03	RFI-12-35 10/14/03	RFI-12-42 10/27/11	RFI-12-42 11/09/12	RFI-16-01 08/14/01	RFI-16-01 09/20/01
Nickel	ug/L	NA	12	24	30	NA	24	NA	NA	NA	NA	NA	120	NA	NA	NA	NA	NA
Selenium	ug/L	NA	1.4 U	1.6 U	2.1	NA	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	0.35 J	0.4 UJ	0.15 J	NA	0.4 UJ	NA	NA	NA	NA	NA	4.4 J	NA	NA	NA	NA	NA
Thallium	ug/L	NA	0.066 J	0.059 J	0.15 J	NA	0.094 J	NA	NA	NA	NA	NA	3.6	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	0.44 J	2.4	0.74 J	NA	0.8 U	NA	NA	NA	NA	NA	140	NA	NA	NA	NA	NA
Zinc	ug/L	NA	8	19	12	NA	8.3	NA	NA	NA	NA	NA	260 J	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8 J	NA	NA	NA	2.1 U	NA
Arsenic (Dissolved)	ug/L	NA	6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	NA	NA	NA	7.3	NA
Barium (Dissolved)	ug/L	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	280	NA
Beryllium (Dissolved)	ug/L	NA	0.94 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 J	NA	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7 J	NA	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	NA	NA	NA	7.1	NA
Cobalt (Dissolved)	ug/L	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.4 J	NA	NA	NA	2.1	NA
Copper (Dissolved)	ug/L	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	16 J	NA	NA	NA	5.5	NA
Cyanide (dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	24	NA	NA	NA	3.6 J	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 J	NA	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	270	NA	NA	NA	880 J	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	6.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	27 J	NA	NA	NA	48	NA
Selenium (Dissolved)	ug/L	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1	NA	NA	NA	10 J	NA
Silver (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 J	NA	NA	NA	2.9 J	NA
Thallium (Dissolved)	ug/L	NA	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.89 J	NA	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 UJ	NA	NA	NA	3.7	NA
Zinc (Dissolved)	ug/L	NA	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	42 J	NA	NA	NA	14	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	0.35	0.658	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	63.8	37.6	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	7.62	7.21	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	30	72	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	6.62	20.23	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	0.07	0.61	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	370	360	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-04 08/10/01	RFI-16-04 09/18/01	RFI-16-04 06/25/02	RFI-16-04R 10/31/07	RFI-16-04R 09/11/08	RFI-16-07 08/10/01	RFI-16-07 09/18/01	RFI-16-09 08/10/01	RFI-16-09 09/18/01	RFI-16-11 08/13/01	RFI-16-11 09/18/01	RFI-16-11 06/26/02	RFI-16-11 03/26/03	RFI-16-12 02/28/02	RFI-16-12 06/24/02	RFI-16-20 12/12/01
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 UJ	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 UJ	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	3.6	NA	3.7 [3.8]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	NA	25 U [25 U]	NA	NA	25 U [25 U]	NA	25 U	NA	31 U	NA	25 U	25 U	3.6 J	4.1 J	25 U
2-Hexanone	ug/L	50 U	NA	50 U [50 U]	NA	NA	50 U [50 U]	NA	50 U	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	50 U [50 U]	NA	NA	50 U [50 U]	NA	50 U	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	25 UJ	NA	25 U [2.3 J]	NA	NA	25 UJ [25 UJ]	NA	25 UJ	NA	6.9 J	NA	4.8 J	25 U	12 J	16 J	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	2	NA	4.3 [4.5]	NA	NA	1 U [1 U]	NA	1 U	NA	18	NA	210 D	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 UJ	NA	1 U [1 U]	NA	NA	1 UJ [1 UJ]	NA	1 UJ	NA	1 UJ	NA	1 U	1 U	1 UJ	1 U	1 U
Carbon Disulfide	ug/L	5 U	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	9.1	NA	21 [20]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	0.53 J	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	0.9 J	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	0.63 J	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	3.8 J	NA	16	5 U	5 UJ	5 U	5 U
Dibromochloromethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	0.54 J	NA	5 U	5 U	3.2 J	1.2 J	5 U
m&p-Xylene	ug/L	2 U	NA	2 U [2 U]	NA	NA	2 U [2 U]	NA	2 U	NA	2 U	NA	0.53 J	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	5 U	NA	5 U	5 U	5 UJ	5 U	5 U
Methylcyclohexane	ug/L	0.95 J	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	0.73 J	NA	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	NA	5 U [5 U]	NA	NA	5 U [5 U]	NA	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-04 08/10/01	RFI-16-04 09/18/01	RFI-16-04 06/25/02	RFI-16-04R 10/31/07	RFI-16-04R 09/11/08	RFI-16-07 08/10/01	RFI-16-07 09/18/01	RFI-16-09 08/10/01	RFI-16-09 09/18/01	RFI-16-11 08/13/01	RFI-16-11 09/18/01	RFI-16-11 06/26/02	RFI-16-11 03/26/03	RFI-16-12 02/28/02	RFI-16-12 06/24/02	RFI-16-20 12/12/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 UJ	NA	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1.2	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	0.52 J
Trichlorofluoromethane	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	NA	1 U [1 U]	NA	NA	1 U [1 U]	NA	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	5.3 UJ	NA	5 U [5 U]	NA	NA	5.3 UJ [5.3 UJ]	NA	5.3 UJ	NA	5 U	NA	NA	NA	5 U	NA	5 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
2,4,5-Trichlorophenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
2,4,6-Trichlorophenol	ug/L	4.2 U	NA	4 U [4 U]	NA	NA	4.2 U [4.2 U]	NA	4.2 U	NA	4 U	NA	NA	NA	4 UJ	NA	4 U
2,4-Dichlorophenol	ug/L	11 U	NA	10 U [10 U]	NA	NA	11 U [11 U]	NA	11 U	NA	10 U	NA	NA	NA	10 UJ	NA	10 U
2,4-Dimethylphenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
2,4-Dinitrophenol	ug/L	21 UJ	NA	20 U [20 U]	NA	NA	21 UJ [21 UJ]	NA	21 UJ	NA	20 U	NA	NA	NA	20 UJ	NA	20 U
2,4-Dinitrotoluene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
2,6-Dinitrotoluene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
2-Chloronaphthalene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
2-Chlorophenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
2-Methylnaphthalene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
2-Methylphenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
2-Nitroaniline	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 U	NA	NA	NA	20 U	NA	20 U
2-Nitrophenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
3&4-Methylphenol	ug/L	11 UJ	NA	10 UJ [10 UJ]	NA	NA	11 UJ [11 UJ]	NA	11 UJ	NA	10 UJ	NA	NA	NA	10 UJ	NA	10 UJ
3,3'-Dichlorobenzidine	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 U	NA	NA	NA	20 U	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 UJ	NA	NA	NA	20 U	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 U	NA	NA	NA	20 UJ	NA	20 U
4-Bromophenyl-phenylether	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
4-Chloro-3-Methylphenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
4-Chloroaniline	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 UJ	NA	NA	NA	20 U	NA	20 U
4-Chlorophenyl-phenylether	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
4-Nitroaniline	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 UJ	NA	NA	NA	20 UJ	NA	20 U
4-Nitrophenol	ug/L	21 UJ	NA	20 U [20 U]	NA	NA	21 UJ [21 UJ]	NA	21 UJ	NA	20 U	NA	NA	NA	20 UJ	NA	20 U
Acenaphthene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Acenaphthylene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Acetophenone	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Anthracene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Atrazine	ug/L	5.3 UJ	NA	5 U [5 U]	NA	NA	5.3 UJ [5.3 UJ]	NA	5.3 UJ	NA	5 UJ	NA	NA	NA	5 U	NA	5 U
Benzaldehyde	ug/L	5.3 UJ	NA	5 UJ [5 UJ]	NA	NA	5.3 UJ [5.3 UJ]	NA	5.3 UJ	NA	5 UJ	NA	NA	NA	5 UJ	NA	5 U
Benzo(a)anthracene	ug/L	1.1 U	NA	1 U [1 U]	NA	NA	1.1 U [1.1 U]	NA	1.1 U	NA	1 U	NA	NA	NA	1 U	NA	1 U
Benzo(a)pyrene	ug/L	2.1 U	NA	2 U [2 U]	NA	NA	2.1 U [2.1 U]	NA	2.1 U	NA	2 U	NA	NA	NA	2 U	NA	2 U
Benzo(b)fluoranthene	ug/L	2.1 U	NA	2 U [2 U]	NA	NA	2.1 U [2.1 U]	NA	2.1 U	NA	2 U	NA	NA	NA	2 U	NA	2 U
Benzo(g,h,i)perylene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Benzo(k)fluoranthene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
bis(2-Chloroethoxy)methane	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
bis(2-Chloroethyl)ether	ug/L	1.1 U	NA	1 U [1 U]	NA	NA	1.1 U [1.1 U]	NA	1.1 U	NA	1 U	NA	NA	NA	1 U	NA	1 U
bis(2-Ethylhexyl)phthalate	ug/L	4.46 J	NA	5 U [5 U]	NA	NA	5.3 U [1.12 J]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	7.48 U
Butylbenzylphthalate	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Caprolactam	ug/L	11 U	NA	10 U [10 U]	NA	NA	11 U [11 U]	NA	11 U	NA	10 U	NA	NA	NA	10 U	NA	10 U
Carbazole	ug/L	11 U	NA	10 U [10 U]	NA	NA	11 U [11 U]	NA	11 U	NA	10 UJ	NA	NA	NA	10 U	NA	10 U
Chrysene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Dibenzo(a,h)anthracene	ug/L	2.1 U	NA	2 U [2 U]	NA	NA	2.1 U [2.1 U]	NA	2.1 U	NA	2 U	NA	NA	NA	2 U	NA	2 U
Dibenzofuran	ug/L	4.2 U	NA	4 U [4 U]	NA	NA	4.2 U [4.2 U]	NA	4.2 U	NA	4 U	NA	NA	NA	4 U	NA	4 U
Diethylphthalate	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	1.28 J [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	3.91 J	NA	1.83 J

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-04 08/10/01	RFI-16-04 09/18/01	RFI-16-04 06/25/02	RFI-16-04R 10/31/07	RFI-16-04R 09/11/08	RFI-16-07 08/10/01	RFI-16-07 09/18/01	RFI-16-09 08/10/01	RFI-16-09 09/18/01	RFI-16-11 08/13/01	RFI-16-11 09/18/01	RFI-16-11 06/26/02	RFI-16-11 03/26/03	RFI-16-12 02/28/02	RFI-16-12 06/24/02	RFI-16-20 12/12/01
Dimethylphthalate	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Di-n-Butylphthalate	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [2.13 J]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Di-n-Octylphthalate	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Fluoranthene	ug/L	2.1 U	NA	2 U [2 U]	NA	NA	2.1 U [2.1 U]	NA	2.1 U	NA	2 U	NA	NA	NA	2 U	NA	2 U
Fluorene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Hexachlorobenzene	ug/L	1.1 U	NA	1 U [1 U]	NA	NA	1.1 U [1.1 U]	NA	1.1 U	NA	1 U	NA	NA	NA	1 U	NA	1 U
Hexachlorobutadiene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Hexachlorocyclopentadiene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 UJ	NA	NA	NA	5 U	NA	5 U
Hexachloroethane	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	2.1 U	NA	2 U [2 U]	NA	NA	2.1 U [2.1 U]	NA	2.1 U	NA	2 U	NA	NA	NA	2 U	NA	2 U
Isophorone	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Methylphenols, Total	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Naphthalene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Nitrobenzene	ug/L	2.1 U	NA	2 U [2 U]	NA	NA	2.1 U [2.1 U]	NA	2.1 U	NA	2 U	NA	NA	NA	2 U	NA	2 U
N-Nitroso-di-n-propylamine	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
N-Nitrosodiphenylamine	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Pentachlorophenol	ug/L	21 U	NA	20 U [20 U]	NA	NA	21 U [21 U]	NA	21 U	NA	20 U	NA	NA	NA	20 UJ	NA	20 U
Phenanthrene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
Phenol	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 UJ	NA	5 U
Pyrene	ug/L	5.3 U	NA	5 U [5 U]	NA	NA	5.3 U [5.3 U]	NA	5.3 U	NA	5 U	NA	NA	NA	5 U	NA	5 U
PCB																	
Aroclor-1016	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1221	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1232	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1242	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1248	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1254	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1260	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	NA	0.1 U [0.1 U]	0.1 U [0.1 U]	0.1 U	0.1 U [0.11 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Total PCBs (Dissolved)	ug/L	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U [0.1 U]	NA	0.11 U	NA	0.11 U	NA	NA	NA	0.1 U	NA	0.11 U
Inorganic																	
Antimony	ug/L	NA	NA	1.2 U [1.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.38 J	1.2 U
Arsenic	ug/L	NA	NA	0.97 J [0.69 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	2 J
Barium	ug/L	NA	NA	400 [380]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	330	200
Beryllium	ug/L	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	1.8 J
Cadmium	ug/L	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.58
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	1.1 [1.1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	1.5
Cobalt	ug/L	NA	NA	0.46 [0.43]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.86	1.5
Copper	ug/L	NA	NA	1.5 [1.4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.3	2.7
Cyanide (total)	ug/L	NA	12	5 U [5 U]	NA	NA	NA	1.9 J	NA	4.1 J	NA	1.5 J	NA	NA	60	26	33
Lead	ug/L	NA	NA	0.49 [0.43]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.92	0.42 U
Manganese	ug/L	NA	NA	560 J [540]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	680 J	12
Mercury	ug/L	NA	0.2 U	0.2 U [0.2 U]	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-04 08/10/01	RFI-16-04 09/18/01	RFI-16-04 06/25/02	RFI-16-04R 10/31/07	RFI-16-04R 09/11/08	RFI-16-07 08/10/01	RFI-16-07 09/18/01	RFI-16-09 08/10/01	RFI-16-09 09/18/01	RFI-16-11 08/13/01	RFI-16-11 09/18/01	RFI-16-11 06/26/02	RFI-16-11 03/26/03	RFI-16-12 02/28/02	RFI-16-12 06/24/02	RFI-16-20 12/12/01
Nickel	ug/L	NA	NA	6.2 [5.9]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.9	5.7
Selenium	ug/L	NA	NA	1.4 U [1.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 J	1.4 U
Silver	ug/L	NA	NA	0.4 UJ [0.4 UJ]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	0.29 J
Thallium	ug/L	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Vanadium	ug/L	NA	NA	0.8 U [0.8 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	0.8 U
Zinc	ug/L	NA	NA	12 [10]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	9
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	NA	NA	1.2 U [1.2 U]	NA	2.8	NA	3.1 U	NA	NA	NA	3.2 J	NA	1.2 U
Arsenic (Dissolved)	ug/L	2.6	NA	NA	NA	NA	1 U [1.3 J]	NA	6.7	NA	19	NA	NA	NA	19	NA	2.5
Barium (Dissolved)	ug/L	150	NA	NA	NA	NA	7.3 [7.6]	NA	10	NA	120	NA	NA	NA	370 J	NA	180
Beryllium (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	0.4 U [0.4 U]	NA	0.4 U	NA	0.4 U	NA	NA	NA	44 J	NA	0.4 U
Cadmium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U	NA	NA	NA	3.2 J	NA	0.2 U
Chromium Total (Dissolved)	ug/L	4.2	NA	NA	NA	NA	0.88 J [0.6 U]	NA	2.9	NA	4	NA	NA	NA	21 J	NA	3.3
Cobalt (Dissolved)	ug/L	0.38	NA	NA	NA	NA	0.2 U [0.21 J]	NA	0.36	NA	0.36	NA	NA	NA	3.7 J	NA	0.98
Copper (Dissolved)	ug/L	26 J	NA	NA	NA	NA	20 J [5.5 J]	NA	100 J	NA	5.8	NA	NA	NA	14	NA	3.4
Cyanide (dissolved)	ug/L	5 U	NA	NA	NA	NA	5 U [5 U]	NA	4.5 J	NA	1.6 J	NA	NA	NA	62	NA	34
Lead (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	0.4 U [0.4 U]	NA	0.4 U	NA	0.4 U	NA	NA	NA	1 J	NA	0.4 U
Manganese (Dissolved)	ug/L	160	NA	NA	NA	NA	350 [370]	NA	22	NA	220 J	NA	NA	NA	1,200 J	NA	12
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U
Nickel (Dissolved)	ug/L	3.3	NA	NA	NA	NA	0.97 [0.93]	NA	2.6	NA	5.1	NA	NA	NA	28 J	NA	7.1
Selenium (Dissolved)	ug/L	11	NA	NA	NA	NA	1.4 U [1.4 U]	NA	2.8	NA	3.6 J	NA	NA	NA	180 J	NA	4.6 J
Silver (Dissolved)	ug/L	0.4 UJ	NA	NA	NA	NA	0.4 UJ [0.4 UJ]	NA	0.4 UJ	NA	0.4 UJ	NA	NA	NA	2 J	NA	0.92 U
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U	NA	NA	NA	1.5	NA	0.2 U
Vanadium (Dissolved)	ug/L	3.2	NA	NA	NA	NA	0.8 U [0.8 U]	NA	3.4	NA	0.97	NA	NA	NA	6.6	NA	0.8 U
Zinc (Dissolved)	ug/L	13	NA	NA	NA	NA	18 J [6 U]	NA	6.2	NA	6 U	NA	NA	NA	49 J	NA	6.8
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	0.812	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	147 -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	6.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	18.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	2,580	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-20 04/09/02	RFI-16-24 04/03/03	RFI-16-25 04/03/03	RFI-17-02 10/03/01	RFI-17-02 06/25/02	RFI-17-02 04/02/03	RFI-17-02 10/05/04	RFI-17-02 06/09/05	RFI-17-02 12/08/05	RFI-17-02 11/01/06	RFI-17-02 04/24/07	RFI-17-02 06/26/07	RFI-17-02 10/26/07	RFI-17-02 03/18/08	RFI-17-02 06/17/08	RFI-17-02 09/10/08
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	30 U	30 U	30 U	30 U	30 UJ	30 U	30 U	30 U [30 U]	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	2	2	2	1	1 J	0.8 J	0.7 J	0.8 J [0.8 J]	0.8 J
1,1-Dichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U [2 U]	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U [1 U]	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U [25 U]	25 U	NA	NA	NA	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 U [20 U]	20 U
2-Hexanone	ug/L	50 U	50 U	50 U [50 U]	50 U	NA	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 UJ
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U [50 U]	50 U	NA	NA	NA	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	10 U
Acetone	ug/L	25 U	25 U	25 U [25 U]	25 U	NA	NA	NA	30 U	30 U	20 U	20 UJ	R	20 U	20 U	20 U [20 U]	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromoform	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromomethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U
Carbon Disulfide	ug/L	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Chloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U [1 U]	1 U
Chloroform	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Chloromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ [1 UJ]	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U [1 U]	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Cyclohexane	ug/L	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U [1 U]	1 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	R	1 U	1 U	1 U [1 U]	1 UJ
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
m&p-Xylene	ug/L	2 U	2 U	2 U [2 U]	2 U	NA	NA	NA	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U [1 U]	1 U
Methyl acetate	ug/L	5 U	5 U	5 UJ [5 U]	5 U	NA	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	3 J	4 J	3 J	2 J	2 J	1 J	1 J	0.4 J [0.4 J]	0.3 J
Methylcyclohexane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U [20 U]	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U [5 U]	5 U	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-20 04/09/02	RFI-16-24 04/03/03	RFI-16-25 04/03/03	RFI-17-02 10/03/01	RFI-17-02 06/25/02	RFI-17-02 04/02/03	RFI-17-02 10/05/04	RFI-17-02 06/09/05	RFI-17-02 12/08/05	RFI-17-02 11/01/06	RFI-17-02 04/24/07	RFI-17-02 06/26/07	RFI-17-02 10/26/07	RFI-17-02 03/18/08	RFI-17-02 06/17/08	RFI-17-02 09/10/08
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U [1 U]	1 UJ	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U [1 U]	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U [1 U]	1 U	NA	NA	NA	1 U	1 U	0.9 J	1 U	1 UJ	1 U	0.6 J	1 U [1 U]	1 U
SVOC																	
1,1'-Biphenyl	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	20 U	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	50 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	50 UJ	NA	NA	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	25 UJ	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5 U	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	10 U	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	10 UJ	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5 U	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	50 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	50 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	10 U	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	20 U	NA	NA	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-16-20 04/09/02	RFI-16-24 04/03/03	RFI-16-25 04/03/03	RFI-17-02 10/03/01	RFI-17-02 06/25/02	RFI-17-02 04/02/03	RFI-17-02 10/05/04	RFI-17-02 06/09/05	RFI-17-02 12/08/05	RFI-17-02 11/01/06	RFI-17-02 04/24/07	RFI-17-02 06/26/07	RFI-17-02 10/26/07	RFI-17-02 03/18/08	RFI-17-02 06/17/08	RFI-17-02 09/10/08
Dimethylphthalate	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	10 U	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5 U	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	10 U	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	10 U	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	100 U	NA	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	25 U	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	1.2 U	1.2 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	27	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	93	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	0.062 J	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	2.6	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	1.2	0.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	3.3	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	1.1 J	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	2	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	85	16 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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RACER Trust Buick City Site - Flint, Michigan

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Nickel	ug/L	NA	NA	NA	NA	3.8	7.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	3.2	1.9 J	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	0.4 UJ	0.4 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	3.8	0.56 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	12	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	1.4 J	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	R	81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	0.6 UJ	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	1.2 J	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	1.6 J	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	0.42	NA	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	71	39 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	2.5	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	3	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	9.9 J	6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.644	0.889	0.854
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93.5	35.4	0.854
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.39	6.88	6.69
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	60	70
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.6	16.97	22.23
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.27	0.34	2.34
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	870	990	680

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02 12/04/08	RFI-17-02 10/19/10	RFI-17-02 10/21/11	RFI-17-02 11/07/12	RFI-17-02D 07/29/05	RFI-17-02D 12/08/05	RFI-17-02D 11/01/06	RFI-17-02D 04/24/07	RFI-17-02D 06/27/07	RFI-17-02D 10/26/07	RFI-17-02D 03/18/08	RFI-17-02D 06/17/08	RFI-17-02D 09/10/08	RFI-17-02D 12/04/08	RFI-17-02D 09/22/09
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	NA	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U [30 U]	30 U	30 U [30 U]
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,1-Dichloroethane	ug/L	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	0.3 J	0.5 J	0.8 J	0.9 J [1 J]	0.9 J	1 [1]
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,2,3-Trichlorobenzene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U [2 U]	2 U	2 U [2 U]
1,2,4-Trimethylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,3,5-Trimethylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	0.3 [0.3]
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	30 U	20 U	20 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U [20 U]
2-Hexanone	ug/L	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ [50 UJ]	50 UJ	50 U [50 U]
2-Methylnaphthalene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	50 U	10 U	10 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U [10 U]
Acetone	ug/L	20 UJ	50 U	20 U	20 U	30 U	30 U	20 U	6 J	20 U	20 U	20 U	20 U	20 U [20 U]	20 UJ	3 [4]
Acrylonitrile	ug/L	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	31	72 [71]	127	80 [78]
Bromobenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Bromomethane	ug/L	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Chloroethane	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Chloromethane	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ [1 U]	1 U	1 U [1 U]
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	3	3	4	1	2	4	3	4	4 [4]	4	3 [3]
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Cyclohexane	ug/L	1 U	NA	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 UJ [1 UJ]	1 U	1 U [1 U]
Dibromochloromethane	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Dibromomethane	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ [1 UJ]	1 U	1 U [1 U]
Diethyl ether	ug/L	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Hexachloroethane	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
m&p-Xylene	ug/L	1 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [0.3]
Methyl acetate	ug/L	10 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U [10 U]
Methyl tert-butyl ether	ug/L	0.3 J	5 U	5 U	5 U	3 J	3 J	2 J	0.9 J	1 J	0.7 J	0.7 J	0.5 J	0.5 J [0.6 J]	0.5 J	0.5 [0.5]
Methylcyclohexane	ug/L	20 U	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U [20 U]	20 U	20 U [20 U]
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]
Naphthalene	ug/L	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
p-Isopropyltoluene	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02 12/04/08	RFI-17-02 10/19/10	RFI-17-02 10/21/11	RFI-17-02 11/07/12	RFI-17-02D 07/29/05	RFI-17-02D 12/08/05	RFI-17-02D 11/01/06	RFI-17-02D 04/24/07	RFI-17-02D 06/27/07	RFI-17-02D 10/26/07	RFI-17-02D 03/18/08	RFI-17-02D 06/17/08	RFI-17-02D 09/10/08	RFI-17-02D 12/04/08	RFI-17-02D 09/22/09
tert-Butylbenzene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Tetrahydrofuran	ug/L	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	0.3 [0.3]
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	0.2 J	1 U [0.3]
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	3	3	2	1 U	2	3	1	2	1 [2]	2 J	1 [1]
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02 12/04/08	RFI-17-02 10/19/10	RFI-17-02 10/21/11	RFI-17-02 11/07/12	RFI-17-02D 07/29/05	RFI-17-02D 12/08/05	RFI-17-02D 11/01/06	RFI-17-02D 04/24/07	RFI-17-02D 06/27/07	RFI-17-02D 10/26/07	RFI-17-02D 03/18/08	RFI-17-02D 06/17/08	RFI-17-02D 09/10/08	RFI-17-02D 12/04/08	RFI-17-02D 09/22/09
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02 12/04/08	RFI-17-02 10/19/10	RFI-17-02 10/21/11	RFI-17-02 11/07/12	RFI-17-02D 07/29/05	RFI-17-02D 12/08/05	RFI-17-02D 11/01/06	RFI-17-02D 04/24/07	RFI-17-02D 06/27/07	RFI-17-02D 10/26/07	RFI-17-02D 03/18/08	RFI-17-02D 06/17/08	RFI-17-02D 09/10/08	RFI-17-02D 12/04/08	RFI-17-02D 09/22/09
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	0.479	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.901	1.646	1.225	0.736	1.135
ORP, Field	millivolts	22.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	46.2	97.6 -	225.1 -	92.4 -	78.1 -
pH Field	s.u.	7.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.49	7.34	7.18	7.31	6.51
Temperature, Ambient	deg f	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	60	65	28	72
Temperature, Field	Deg C	12.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.42	15.12	19.66	13.07	16.72
Turbidity (Field)	NTU	0.84	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.69	0.76	1.43	5.73	10.8
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,690	510	870	140	120

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02D 10/21/11	RFI-17-02D 11/07/12	RFI-17-02-ULF 10/03/01	RFI-21-04 11/19/01	RFI-21-04 06/13/02	RFI-21-04 10/07/04	RFI-21-04 04/06/05	RFI-23-01 09/18/01	RFI-23-01R 10/04/04	RFI-23-01R 04/06/05	RFI-23-01R 11/01/06	RFI-23-01R 10/31/07	RFI-23-01R 09/11/08	RFI-23-02 09/18/01	RFI-23-02R 10/04/04
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 UJ	NA	0.7 J	NA	NA	1 U	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	NA	1 U	1 U	30 U	NA	1 U	NA	NA	30 U	30 U	30 U	1 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	NA	5 U	5 U	2 U	NA	5 U	NA	NA	2 U	2 U	2 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	NA	1 U	1 U	1 UJ	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 U	NA	25 U	25 U	30 U	NA	25 U	NA	NA	20 U	20 U	20 U	25 U	NA
2-Hexanone	ug/L	50 U	50 U	NA	50 U	50 U	50 U	NA	50 U	NA	NA	50 U	50 U	50 UJ	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	NA	50 U	50 U	1 U	NA	50 U	NA	NA	10 U	10 U	10 U	50 U	NA
Acetone	ug/L	20 U	20 U	NA	25 U	25 U	30 U	NA	25 U	NA	NA	20 U	20 U	20 U	25 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Bromoform	ug/L	1 U	1 U	NA	1 U	1 U	1 UJ	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Bromomethane	ug/L	2 U	2 U	NA	1 UJ	1 U	2 UJ	NA	1 U	NA	NA	2 U	2 U	2 U	1 U	NA
Carbon Disulfide	ug/L	5 U	5 U	NA	5 U	5 U	5 UJ	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA
Carbon Tetrachloride	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Chlorobenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Chloroethane	ug/L	1 U	1 U	NA	1 UJ	1 U	1 UJ	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Chloroform	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Chloromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	2	1	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1	0.8 J	1	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Cyclohexane	ug/L	1 U	1	NA	5 U	5 U	1 U	NA	5 U	NA	NA	1 UJ	1 U	1 UJ	5 U	NA
Dibromochloromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 UJ	NA	1 U	NA	NA	1 U	1 U	1 UJ	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	NA	5 U	5 U	1 U	NA	5 U	NA	NA	1 U	1 U	1 U	5 U	NA
m&p-Xylene	ug/L	2 U	2 U	NA	2 U	2 U	1 U	NA	2 U	NA	NA	1 U	1 U	1 U	2 U	NA
Methyl acetate	ug/L	10 U	10 U	NA	5 U	5 U	10 U	NA	5 U	NA	NA	10 U	10 U	10 U	5 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	NA	5 UJ	5 U	5 U	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA
Methylcyclohexane	ug/L	20 U	20 U	NA	1 U	1 U	20 U	NA	1 U	NA	NA	20 U	20 U	20 U	1 U	NA
Methylene Chloride	ug/L	5 U	5 U	NA	5 U	5 U	0.6 J	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA
Naphthalene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02D 10/21/11	RFI-17-02D 11/07/12	RFI-17-02-ULF 10/03/01	RFI-21-04 11/19/01	RFI-21-04 06/13/02	RFI-21-04 10/07/04	RFI-21-04 04/06/05	RFI-23-01 09/18/01	RFI-23-01R 10/04/04	RFI-23-01R 04/06/05	RFI-23-01R 11/01/06	RFI-23-01R 10/31/07	RFI-23-01R 09/11/08	RFI-23-02 09/18/01	RFI-23-02R 10/04/04
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	NA	1 UJ	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	2	2	3	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	1 U	1 U	NA	1 U	1 U	1 U	NA	1 U	NA	NA	1 U	1 U	1 U	1 U	NA
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	4 U	NA	NA	5 U	4 U	5 U	5 U	NA	NA	NA	4.4 U	5 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	10 U	10 U	0.6 J	10 U	NA	NA	NA	11 U	10 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	1 J	5 U	NA	NA	NA	5.6 U	0.6 J
2,4-Dinitrophenol	ug/L	NA	NA	NA	20 U	NA	NA	20 UJ	20 U	20 U	20 UJ	NA	NA	NA	22 U	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
2-Chloronaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
2-Chlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
2-Methylnaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
2-Methylphenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	0.7 J	5 U	NA	NA	NA	5.6 U	5 U
2-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	20 U	20 U	20 U	NA	NA	NA	22 U	20 U
2-Nitrophenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
3&4-Methylphenol	ug/L	NA	NA	NA	10 UJ	NA	NA	NA	10 UJ	NA	NA	NA	NA	NA	11 UJ	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	20 U	NA	NA	20 U	20 U	20 U	20 U	NA	NA	NA	22 U	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	5 U	NA	1 J	5 U	NA	NA	NA	NA	0.7 J
3-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	20 U	20 U	20 U	NA	NA	NA	22 U	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	20 U	NA	NA	20 UJ	20 U	20 U	20 UJ	NA	NA	NA	22 U	20 U
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
4-Chloroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	20 U	20 UJ	20 U	NA	NA	NA	22 U	20 UJ
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	5 U	NA	NA	5 U	R	5 U	5 U	NA	NA	NA	R	5 U
4-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	20 U	20 U	20 U	NA	NA	NA	22 U	20 U
4-Nitrophenol	ug/L	NA	NA	NA	20 U	NA	NA	20 UJ	20 U	8 J	20 UJ	NA	NA	NA	22 U	6 J
Acenaphthene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Acenaphthylene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Acetophenone	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Anthracene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Atrazine	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Benzaldehyde	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Benzo(a)anthracene	ug/L	NA	NA	NA	1 U	NA	NA	5 U	1 U	1 U	5 U	NA	NA	NA	1.1 U	1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	2 U	NA	NA	5 U	2 U	2 U	5 U	NA	NA	NA	2.2 U	2 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2 U	NA	NA	5 U	2 U	2 U	5 U	NA	NA	NA	2.2 U	2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5 UJ	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1 U	NA	NA	5 U	1 U	5 U	5 U	NA	NA	NA	1.1 U	5 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	0.7 J	5 U	NA	NA	NA	5.6 U	0.7 J
Butylbenzylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Caprolactam	ug/L	NA	NA	NA	10 U	NA	NA	10 UJ	10 U	10 U	10 UJ	NA	NA	NA	11 U	10 U
Carbazole	ug/L	NA	NA	NA	10 U	NA	NA	10 U	10 U	10 U	10 U	NA	NA	NA	11 U	10 U
Chrysene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2 U	NA	NA	0.5 J	2 U	2 U	5 U	NA	NA	NA	2.2 U	2 U
Dibenzofuran	ug/L	NA	NA	NA	4 U	NA	NA	0.1 J	4 U	5 U	5 U	NA	NA	NA	4.4 U	5 U
Diethylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-17-02D 10/21/11	RFI-17-02D 11/07/12	RFI-17-02-ULF 10/03/01	RFI-21-04 11/19/01	RFI-21-04 06/13/02	RFI-21-04 10/07/04	RFI-21-04 04/06/05	RFI-23-01 09/18/01	RFI-23-01R 10/04/04	RFI-23-01R 04/06/05	RFI-23-01R 11/01/06	RFI-23-01R 10/31/07	RFI-23-01R 09/11/08	RFI-23-02 09/18/01	RFI-23-02R 10/04/04
Dimethylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Fluoranthene	ug/L	NA	NA	NA	2 U	NA	NA	5 U	2 U	2 U	5 U	NA	NA	NA	2.2 U	2 U
Fluorene	ug/L	NA	NA	NA	5 U	NA	NA	0.1 J	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Hexachlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	5 U	1 U	5 U	5 U	NA	NA	NA	1.1 U	5 U
Hexachlorobutadiene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5 U	NA	NA	5 UJ	5 U	5 U	5 UJ	NA	NA	NA	5.6 U	5 U
Hexachloroethane	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2 UJ	NA	NA	5 U	2 U	2 U	5 U	NA	NA	NA	2.2 U	2 U
Isophorone	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Methylphenols, Total	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	0.7 J	5 U	NA	NA	NA	5.6 U	5 U
Naphthalene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
Nitrobenzene	ug/L	NA	NA	NA	2 U	NA	NA	5 U	2 U	5 U	5 U	NA	NA	NA	2.2 U	5 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	5.6 U	5 U
Pentachlorophenol	ug/L	NA	NA	NA	20 U	NA	NA	1 U	20 U	2 J	1 U	NA	NA	NA	22 U	3 J
Phenanthrene	ug/L	NA	NA	NA	5 U	NA	NA	0.4 J	5 U	2 U	0.2 J	NA	NA	NA	5.6 U	2 U
Phenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	0.9 J	5 U	NA	NA	NA	5.6 U	1 J
Pyrene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	2 U	5 U	NA	NA	NA	5.6 U	2 U
PCB																
Aroclor-1016	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1221	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1232	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1242	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1248	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1254	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1260	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	0.11 U	NA
Inorganic																
Antimony	ug/L	NA	NA	0.44 J	1.2 UJ	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	5.5 J	2.3 J	1.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Barium	ug/L	NA	NA	140 J	570 J	640 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	0.4 U	0.4 UJ	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Cadmium	ug/L	NA	NA	0.093 J	2.3 J	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	1.9 J	0.6 U	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Cobalt	ug/L	NA	NA	0.5 J	4.5	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	2.6 J	3.5 U	5.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	5 U	3.5 J	NA	NA	NA	11	NA	NA	NA	NA	NA	7.7	NA
Lead	ug/L	NA	NA	0.77 J	0.4 U	0.35 J	NA	NA	NA	3 U	NA	NA	NA	NA	NA	3 U
Manganese	ug/L	NA	NA	33 J	8,200 J	6,300	16,400	NA	NA	NA	NA	NA	NA	NA	NA	301
Mercury	ug/L	NA	NA	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA

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Nickel	ug/L	NA	NA	6.9 J	18	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Selenium	ug/L	5 U	5 U	7.3 J	1.4 U	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	0.45 J	0.09 J	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	0.055 J	0.13 J	0.053 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Vanadium	ug/L	NA	NA	1.2 J	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	9
Zinc	ug/L	NA	NA	29 J	19 U	19 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	4.3	NA	NA	NA	1 U	NA	NA	NA	NA	NA	2.3	NA
Barium (Dissolved)	ug/L	NA	NA	NA	710	NA	NA	NA	120	NA	NA	NA	NA	NA	130	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	2.8	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	3.7	NA	NA	NA	1.3	NA	NA	NA	NA	NA	0.83	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	5	NA	NA	NA	0.39	NA	NA	NA	NA	NA	1.1	NA
Copper (Dissolved)	ug/L	NA	NA	NA	6.6 U	NA	NA	NA	16	NA	NA	NA	NA	NA	9.5	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	7.5	NA	NA	NA	10	NA	NA	NA	NA	NA	8.7	NA
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	9,200 J	NA	NA	NA	1.9	NA	NA	NA	NA	NA	13	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	21	NA	NA	NA	3.1	NA	NA	NA	NA	NA	5.2	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	1.4 U	NA	NA	NA	1.4 U	NA	NA	NA	NA	NA	4.7 J	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	21 U	NA	NA	NA	9.7	NA	NA	NA	NA	NA	12	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.786	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.1	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.12	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.55	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.04	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	600	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-23-02R 04/06/05	RFI-36-02 10/04/01	RFI-36-02 06/13/02	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-36-03 09/27/01	RFI-36-03 06/18/02	RFI-36-03 03/25/03	RFI-36-03 06/09/05	RFI-36-03 11/02/06	RFI-36-03 04/23/07	RFI-36-03 06/26/07
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1 U	NA	NA	0.4 J	0.2 J [0.1 J]	0.4 J	1 U	1 U	42	19	54	2	8	5	4 [5]
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U	NA	NA	30 U	30 U [30 U]	30 U	NA	30 U	1 U	1 U	1 U	30 U	30 U	30 U	30 UJ [30 UJ]
1,1,2-Trichloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,1-Dichloroethane	ug/L	NA	0.76 J	NA	NA	4 J	1 [2]	1	1 U	1	4.5	86	160 D	1 U	0.8 J	1	3 [3]
1,1-Dichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	0.76 J	3	1 U	1 U	1 U	1 U [1 U]
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5 U	NA	NA	2 U	2 U [2 U]	2 U	5 U	2 U	5 U	5 U	5 U	2 U	2 U	2 U	2 U [2 U]
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ [1 UJ]
1,2-Dibromoethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,2-Dichlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,2-Dichloroethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1.9	1.1	1 U	1 U	1 U	1 U [1 U]
1,2-Dichloropropane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,4-Dichlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	25 U	NA	NA	30 U	20 U [20 U]	20 U	25 U	20 U	25 U	25 U	25 U	30 U	20 U	20 U	20 U [20 U]
2-Hexanone	ug/L	NA	50 U	NA	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U	NA	NA	1 U	10 U [10 U]	10 U	50 U	10 U	50 U	50 U	50 U	1 U	10 U	10 U	10 U [10 U]
Acetone	ug/L	NA	25 U	NA	NA	30 U	20 U [20 U]	20 U	50 U	20 U	25 U	1.5 J	25 U	30 U	20 U	20 UJ	R [R]
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	2.8	1 U	1 U	1 U	1 U [1 U]
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Bromoform	ug/L	NA	1 U	NA	NA	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Bromomethane	ug/L	NA	1 U	NA	NA	2 UJ	2 U [2 U]	2 U	5 U	2 U	1 U	1 U	1 UJ	2 U	2 U	2 U	2 U [2 U]
Carbon Disulfide	ug/L	NA	5 U	NA	NA	5 UJ	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]
Carbon Tetrachloride	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Chlorobenzene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Chloroethane	ug/L	NA	1 U	NA	NA	1 UJ	1 U [1 U]	1 U	5 U	1 U	1 U	16	19	1 U	1 U	1 U	1 UJ [1 UJ]
Chloroform	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	12	0.4 J	0.2 J	1 U [1 U]
Chloromethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	5 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ [1 UJ]
cis-1,2-Dichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	0.77 J	1.2	1 U	1 U	1 U	1 U [1 U]
cis-1,3-Dichloropropene	ug/L	NA	1 U	NA	NA	1 U	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U [1 U]
Cyclohexane	ug/L	NA	5 U	NA	NA	1 U	1 U [1 U]	1 U	NA	1 U	0.79 J	5 U	5 U	1 U	1 U	1 UJ	1 UJ [1 UJ]
Dibromochloromethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 UJ	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	R [R]
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5 U	NA	NA	1 U	1 U [1 U]	1 U	5 U	1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]
m&p-Xylene	ug/L	NA	2 U	NA	NA	1 U	1 U [1 U]	1 U	2 U	2 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U [1 U]
Methyl acetate	ug/L	NA	5 U	NA	NA	10 U	10 U [10 U]	10 U	NA	10 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U [10 U]
Methyl tert-butyl ether	ug/L	NA	5 U	NA	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	0.65 J	5 U	5 U	5 U	5 U	5 U [5 U]
Methylcyclohexane	ug/L	NA	1 U	NA	NA	20 U	20 U [20 U]	20 U	NA	20 U	1 U	1 U	1 U	20 U	20 U	20 U	20 U [20 U]
Methylene Chloride	ug/L	NA	5 U	NA	NA	0.4 J	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-23-02R 04/06/05	RFI-36-02 10/04/01	RFI-36-02 06/13/02	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-36-03 09/27/01	RFI-36-03 06/18/02	RFI-36-03 03/25/03	RFI-36-03 06/09/05	RFI-36-03 11/02/06	RFI-36-03 04/23/07	RFI-36-03 06/26/07
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1 UJ	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
trans-1,2-Dichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
trans-1,3-Dichloropropene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	0.68 J	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Trichlorofluoromethane	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ [1 UJ]
Vinyl Chloride	ug/L	NA	1 U	NA	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1.9	1 U	1 U	1 U	1 U	1 UJ [1 UJ]
SVOC																	
1,1'-Biphenyl	ug/L	0.1 J	5 U	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5 U	4 U	NA	NA	NA	NA	NA	4 U	NA	4.1 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	10 U	10 U	NA	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 UJ	20 U	NA	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	10 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	10 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	10 UJ	NA	NA	NA	NA	NA	20 U	NA	10 U	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	20 U	NA	NA	NA	NA	NA	5 U	NA	21 U	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 UJ	20 U	NA	NA	NA	NA	NA	20 U	NA	21 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	10 U	NA	21 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	20 U	20 U	NA	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 UJ	20 U	NA	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	5 U	1 U	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	5 U	2 U	NA	NA	NA	NA	NA	1 U	NA	2.1 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	5 U	2 U	NA	NA	NA	NA	NA	1 U	NA	2.1 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	1 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	1 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	5 U	1 U	NA	NA	NA	NA	NA	5 U	NA	1 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	10 UJ	10 U	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	1 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	5 U	2 U	NA	NA	NA	NA	NA	2 U	NA	2.1 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	5 U	4 U	NA	NA	NA	NA	NA	4 U	NA	4.1 U	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-23-02R 04/06/05	RFI-36-02 10/04/01	RFI-36-02 06/13/02	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-36-03 09/27/01	RFI-36-03 06/18/02	RFI-36-03 03/25/03	RFI-36-03 06/09/05	RFI-36-03 11/02/06	RFI-36-03 04/23/07	RFI-36-03 06/26/07
Dimethylphthalate	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	5 U	2 U	NA	NA	NA	NA	NA	1 U	NA	2.1 U	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5 U	1 U	NA	NA	NA	NA	NA	5 U	NA	1 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	10 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5 UJ	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	5 U	2 U	NA	NA	NA	NA	NA	2 U	NA	2.1 U	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	0.1 J	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	5 U	2 U	NA	NA	NA	NA	NA	5 U	NA	2.1 U	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	1 U	20 U	NA	NA	NA	NA	NA	5 U	NA	21 U	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	0.2 J	5 U	NA	NA	NA	NA	NA	2 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5 U	5 U	NA	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	1.2 U	1.2 U	1.2 U	NA	NA	NA	NA	NA	1.2 U	1.2 U	1.4	NA	NA	NA	NA
Arsenic	ug/L	NA	85 J	91	19	13	NA	NA	9	22 [23]	1.5 U	1.9 U	2.8	NA	NA	NA	NA
Barium	ug/L	NA	400 J	230 J	170 J	NA	NA	NA	352	NA	150 J	200	150 J	NA	NA	NA	NA
Beryllium	ug/L	NA	0.74 J	0.4 UJ	0.4 U	NA	NA	NA	1 U	NA	0.74 J	0.4 UJ	0.4 U	NA	NA	NA	NA
Cadmium	ug/L	NA	0.2 U	0.2 U	0.14 J	NA	NA	NA	0.5 U	NA	0.31 J	0.49	21	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	1	0.5 J	0.43 J	NA	NA	NA	5 U	NA	2	1.2	2.9	NA	NA	NA	NA
Cobalt	ug/L	NA	14	5.3	12	NA	NA	NA	5 U	NA	0.84	5.3	9.2	NA	NA	NA	NA
Copper	ug/L	NA	1.9	2.5	3.1	NA	NA	NA	NA	NA	2.3	4.5 J	17	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5 U	NA	5 U	NA	NA	NA	5 U	NA	11	6.1	5 U	NA	NA	NA	NA
Lead	ug/L	NA	0.51	0.42 J	1.3	NA	NA	NA	NA	NA	0.37 J	0.19 J	5.2	NA	NA	NA	NA
Manganese	ug/L	NA	1,200 J	1,400 J	640	NA	NA	NA	1,070	NA	110 J	430	250	NA	NA	NA	NA
Mercury	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	0.39	0.2 U	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-23-02R 04/06/05	RFI-36-02 10/04/01	RFI-36-02 06/13/02	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-36-03 09/27/01	RFI-36-03 06/18/02	RFI-36-03 03/25/03	RFI-36-03 06/09/05	RFI-36-03 11/02/06	RFI-36-03 04/23/07	RFI-36-03 06/26/07
Nickel	ug/L	NA	130	92	66	20	NA	NA	52	NA	6.3	20	19	NA	NA	NA	NA
Selenium	ug/L	NA	1.4 U	1.4 U	1.6 U	NA	NA	NA	5 U	NA	1.4 U	2.7 J	1.6 U	NA	NA	NA	NA
Silver	ug/L	NA	0.4 U	0.4 UJ	0.4 U	NA	NA	NA	0.2 U	NA	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA
Thallium	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	NA	NA	2 U	NA	0.2 U	0.42	0.23	NA	NA	NA	NA
Vanadium	ug/L	NA	0.8 U	0.8 U	0.8 U	NA	NA	NA	NA	NA	0.8 U	0.8 U	2.3	NA	NA	NA	NA
Zinc	ug/L	NA	18 J	15 J	23 U	NA	NA	NA	5 U	NA	7.1 J	12 J	95 J	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	57	NA	NA	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	R	NA	NA	NA	NA	NA	NA	NA	170	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	0.37	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	0.6 UJ	NA	NA	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	8.4	NA	NA	NA	NA	NA	NA	NA	0.78	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	10 J	NA	NA	NA	NA	NA	NA	NA	2.1	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	10	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	780	NA	NA	NA	NA	NA	NA	NA	120 J	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	77	NA	NA	NA	NA	NA	NA	NA	6.4	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	1.4	NA	NA	NA	NA	NA	NA	NA	4.2 J	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	19 J	NA	NA	NA	NA	NA	NA	NA	6 U	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-03 10/27/11	RFI-36-03 11/07/12	RFI-36-03 06/05/13	RFI-36-04 09/28/01	RFI-36-04 06/18/02	RFI-36-04 04/02/03	RFI-36-04 09/18/08	RFI-36-04 10/27/11	RFI-36-05 09/21/01	RFI-36-05 12/16/02	RFI-36-05 04/02/03	RFI-36-05 06/10/05	RFI-36-08 09/27/01	RFI-36-08 06/14/02	RFI-36-08 03/25/03	RFI-36-08 10/08/04
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	NA	1 UJ	NA	NA	1 U	1 U	480 D [440 D]	190 D	120 D	209	1 U	1 U	1 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	NA	1 U	NA	NA	30 U	30 U	1 U [1 U]	1 U	1 U	200 U	1 U	1 U	1 U	300 U
1,1,2-Trichloroethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1.9 [1.9]	1.4	1.1	5 U	1 U	1 U	1 U	10 U
1,1-Dichloroethane	ug/L	NA	NA	NA	0.82 J	NA	NA	2	4	490 D [450 D]	330 D	240 D	404	2.1	1.9	1 U	10 U
1,1-Dichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	14 [14]	5.6	2.5	9	1 U	1 U	1 U	10 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	5 U	NA	NA	2 U	2 U	5 U [5 U]	5 U	5 U	10 U	5 U	5 U	5 U	20 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 UJ	1 U	5 U	1 U	1 U	1 U	10 UJ
1,2-Dibromoethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
1,2-Dichlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
1,2-Dichloroethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	0.7 J [0.76 J]	1 U	1 U	5 U	1 U	1 U	1.1	10 U
1,2-Dichloropropane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
1,4-Dichlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	NA	25 U	NA	NA	20 U	20 U	25 U [25 U]	25 U	25 U	100 U	3.8 J	25 U	25 U	300 U
2-Hexanone	ug/L	NA	NA	NA	50 U	NA	NA	50 UJ	50 U	50 U [50 U]	50 U	50 U	300 U	50 U	50 U	50 U	500 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	NA	50 U	NA	NA	10 U	10 U	50 U [50 U]	50 U	50 U	5 U	50 U	50 U	50 U	10 U
Acetone	ug/L	NA	NA	NA	25 U	NA	NA	20 U	20 U	25 U [25 U]	25 U	25 U	100 U	8.5 J	25 U	25 U	300 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	590 D	1,300 D	130 D	780
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
Bromoform	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 UJ	1 U	5 U	1 U	1 U	1 U	10 UJ
Bromomethane	ug/L	NA	NA	NA	1 U	NA	NA	2 UJ	2 U	1 UJ [1 UJ]	1 U	1 U	10 U	1 U	1 U	1 UJ	20 UJ
Carbon Disulfide	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U [5 U]	5 U	5 U	30 U	5 U	5 U	5 U	50 UJ
Carbon Tetrachloride	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 UJ	1 U	5 U	1 U	1 U	1 U	10 U
Chlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
Chloroethane	ug/L	NA	NA	NA	1 U	NA	NA	1 UJ	1 U	7.4 [7.1]	8.2	17	5 U	0.76 J	1 U	1 U	10 UJ
Chloroform	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
Chloromethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 UJ	10 U
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	1	2	4.5 [4.3]	1.9	1	3 J	1 U	1 U	1 U	10 U
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
Cyclohexane	ug/L	NA	NA	NA	5 U	NA	NA	1 U	1 U	5 U [5 U]	5 U	5 U	5 U	44 J	5 U	5 U	20 J
Dibromochloromethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 UJ	1 U	5 U	1 U	1 U	1 U	10 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 UJ
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	430 D	1,200 D	25	770
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	NA	5 U	NA	NA	1 U	1 U	5 U [5 U]	5 U	5 U	5 U	22	37 J	5 U	20
m&p-Xylene	ug/L	NA	NA	NA	2 U	NA	NA	1 U	2 U	2 U [2 U]	2 U	2 U	5 U	2,000 D	2,100 D	240 D	1,590 J
Methyl acetate	ug/L	NA	NA	NA	5 U	NA	NA	10 U	10 U	5 U [5 U]	5 U	5 U	50 U	5 U	5 U	5 U	100 U
Methyl tert-butyl ether	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	7.4 J [7.6]	4.7 J	5 U	3 J	5 U	5 U	5 U	50 U
Methylcyclohexane	ug/L	NA	NA	NA	1 U	NA	NA	20 U	20 U	1 U [1 U]	1 U	1 U	100 U	150 D	64	28	90 J
Methylene Chloride	ug/L	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U [5 U]	5 U	5 U	30 U	5 U	5 UJ	5 U	10 J
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	750 D	1,200 D	100 D	910
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-03 10/27/11	RFI-36-03 11/07/12	RFI-36-03 06/05/13	RFI-36-04 09/28/01	RFI-36-04 06/18/02	RFI-36-04 04/02/03	RFI-36-04 09/18/08	RFI-36-04 10/27/11	RFI-36-05 09/21/01	RFI-36-05 12/16/02	RFI-36-05 04/02/03	RFI-36-05 06/10/05	RFI-36-08 09/27/01	RFI-36-08 06/14/02	RFI-36-08 03/25/03	RFI-36-08 10/08/04
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 UJ	1 U	10 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	2,800 D	870 D	98 D	1,500
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	0.64 J [0.66 J]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	1 UJ	NA	NA	1 U	1 U	6.3 [6.2]	2.3	1.4	5 U	1 U	1 U	1 U	10 U
Trichlorofluoromethane	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	10 U
Vinyl Chloride	ug/L	NA	NA	NA	1 U	NA	NA	3	1 U	8 [7.6]	0.69 J	1 U	19	1 U	1 U	1 U	10 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	4.1 U	NA	NA	NA	NA	4 U	NA	NA	NA	4.4 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	11 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	96.7	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	20.5	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	10 UJ	NA	NA	NA	NA	10 UJ	NA	NA	NA	41.5 J	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	R	NA	NA	NA	5.6 U	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 UJ	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	5.1 UJ	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	1.1 U	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA	NA	NA	2.2 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA	NA	NA	2.2 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	1.1 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	11 U	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	11 U	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA	NA	NA	2.2 U	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	4.1 U	NA	NA	NA	NA	4 U	NA	NA	NA	4.4 U	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-03 10/27/11	RFI-36-03 11/07/12	RFI-36-03 06/05/13	RFI-36-04 09/28/01	RFI-36-04 06/18/02	RFI-36-04 04/02/03	RFI-36-04 09/18/08	RFI-36-04 10/27/11	RFI-36-05 09/21/01	RFI-36-05 12/16/02	RFI-36-05 04/02/03	RFI-36-05 06/10/05	RFI-36-08 09/27/01	RFI-36-08 06/14/02	RFI-36-08 03/25/03	RFI-36-08 10/08/04
Dimethylphthalate	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA	NA	NA	2.2 U	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	1.1 U	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA	NA	NA	2.2 U	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	20.5	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	10.8	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	2.1 U	NA	NA	NA	NA	2 U	NA	NA	NA	2.2 U	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	21 U	NA	NA	NA	NA	20 U	NA	NA	NA	22 U	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Phenol	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	5.1 U	NA	NA	NA	NA	5 U	NA	NA	NA	5.6 U	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	0.1 U	NA	NA	NA
Inorganic																	
Antimony	ug/L	5 U	NA	NA	NA	1.2 U [1.1 J]	1.2 U	NA	NA	NA	1.2 U	NA	NA	NA	NA	1.2 U	NA
Arsenic	ug/L	2 U	NA	NA	NA	80 [80 J]	87	NA	257	NA	4.5	NA	NA	NA	NA	13	NA
Barium	ug/L	79	NA	NA	NA	460 [530 J]	410	NA	NA	NA	150 J	NA	NA	NA	NA	93 J	NA
Beryllium	ug/L	1 U	NA	NA	NA	0.4 UJ [0.13 J]	0.4 U	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	0.5 U	NA	0.5 U	NA	0.2 U [0.12 J]	0.19 J	NA	NA	NA	0.14 J	NA	NA	NA	NA	0.2 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	5 U	NA	NA	NA	0.71 [0.67]	3.3	NA	NA	NA	2.2	NA	NA	NA	NA	0.51 J	NA
Cobalt	ug/L	5 U	NA	NA	NA	2.9 [3.1]	3	NA	NA	NA	11 J	NA	NA	NA	NA	1	NA
Copper	ug/L	4 U	NA	NA	NA	5.7 J [3.4]	9.7	NA	NA	NA	5 J	NA	NA	NA	NA	2.9	NA
Cyanide (total)	ug/L	5 U	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	2.1 J [5 U]	NA	NA	NA	5 U	NA	5 U	NA
Lead	ug/L	8	4	3 U	NA	1 [0.91]	1.8	NA	NA	NA	0.96 J	NA	NA	NA	NA	0.4 J	NA
Manganese	ug/L	32	NA	NA	NA	440 [560 J]	600 J	NA	NA	NA	1,400 J	NA	NA	NA	NA	570	NA
Mercury	ug/L	0.2 U	NA	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	NA	0.2 U [0.2 U]	0.2 U	NA	NA	0.2 U	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-03 10/27/11	RFI-36-03 11/07/12	RFI-36-03 06/05/13	RFI-36-04 09/28/01	RFI-36-04 06/18/02	RFI-36-04 04/02/03	RFI-36-04 09/18/08	RFI-36-04 10/27/11	RFI-36-05 09/21/01	RFI-36-05 12/16/02	RFI-36-05 04/02/03	RFI-36-05 06/10/05	RFI-36-08 09/27/01	RFI-36-08 06/14/02	RFI-36-08 03/25/03	RFI-36-08 10/08/04
Nickel	ug/L	16	NA	NA	NA	61 [61]	40	NA	NA	NA	73 J	NA	NA	NA	NA	4.8	NA
Selenium	ug/L	5 U	NA	NA	NA	1.4 U [1.3 J]	1.6 U	NA	NA	NA	1.6 U	NA	NA	NA	NA	1.6 U	NA
Silver	ug/L	0.5 U	NA	NA	NA	0.4 U [0.54]	0.4 U	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	0.4 U	NA
Thallium	ug/L	2 U	NA	NA	NA	0.21 U [0.12 J]	0.22	NA	NA	NA	0.8 J	NA	NA	NA	NA	0.2 U	NA
Vanadium	ug/L	4 U	NA	NA	NA	0.21 J [0.8 U]	0.65 J	NA	NA	NA	0.22 J	NA	NA	NA	NA	0.8 U	NA
Zinc	ug/L	8	NA	NA	NA	34 J [17]	26	NA	NA	NA	14 J	NA	NA	NA	NA	19 U	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	NA	NA	NA	NA	1.2 U [1.2 U]	NA	NA	NA	1.2 U	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	81	NA	NA	NA	NA	5.1 [4.6]	NA	NA	NA	39	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	480	NA	NA	NA	NA	220 [220 J]	NA	NA	NA	300	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.4 U [0.4 U]	NA	NA	NA	0.4 U	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	0.6 U	NA	NA	NA	NA	0.83 [0.72]	NA	NA	NA	0.6 U	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	2.6	NA	NA	NA	NA	11 [11]	NA	NA	NA	0.71	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	1.3	NA	NA	NA	NA	4 [9.7]	NA	NA	NA	0.89	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	5 U	NA	NA	NA	NA	3.7 J [5 U]	NA	NA	NA	1.6 J	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.61 [0.63]	NA	NA	NA	0.4 U	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	330 J	NA	NA	NA	NA	1,100 [1,100]	NA	NA	NA	360 J	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	43	NA	NA	NA	NA	69 [70]	NA	NA	NA	4.7	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	2.9	NA	NA	NA	NA	1.8 J [1.4 U]	NA	NA	NA	3.3 J	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.96 [0.71 J]	NA	NA	NA	0.4 UJ	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	0.2 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	NA	NA	NA	NA	0.8 U [0.8 U]	NA	NA	NA	0.8 U	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	15 J	NA	NA	NA	NA	30 [22]	NA	NA	NA	12	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	2.701	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	113.6 -	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	7.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	60	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	22.34	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	0.58	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	280	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-08 06/05/13	RFI-36-09 09/27/01	RFI-36-09 06/14/02	RFI-36-09 03/25/03	RFI-36-09 04/23/07	RFI-36-09 09/23/09	RFI-36-10 09/28/01	RFI-36-10 03/27/03	RFI-36-10 04/23/07	RFI-36-11 09/21/01	RFI-36-12 09/28/01	RFI-36-13 11/09/01	RFI-36-13 06/24/02	RFI-36-14 10/02/01	RFI-36-14 02/20/02
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	10 UY	10	NA	NA	1	4	21	NA	4	11	1.4	12	11 [12]	1 U [1 U]	NA
1,1,2,2-Tetrachloroethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U	1 U [1 U]	1 UJ [1 UJ]	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	300 UY	1 U	NA	NA	30 U	30 U	2.1	NA	30 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,1,2-Trichloroethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,1-Dichloroethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	2	NA	0.4 J	14	24	4.6	4.1 [4.4]	1 U [1 U]	NA
1,1-Dichloroethene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1.5 [1.5]	1 U [1 U]	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	20 UY	5 U	NA	NA	2 U	2 U	5 U	NA	2 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,2-Dibromoethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,2-Dichlorobenzene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,2-Dichloroethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,2-Dichloropropane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	10 UY	1 U	NA	NA	1 U	0.3	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,4-Dichlorobenzene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	200 UY	25 U	NA	NA	20 U	20 U	25 U	NA	20 U	25 U	25 U	25 U	25 U [25 U]	25 U [25 U]	NA
2-Hexanone	ug/L	500 UY	50 U	NA	NA	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	50 U [50 U]	50 U [50 U]	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	100 UY	50 U	NA	NA	10 U	10 U	50 U	NA	10 U	50 U	50 U	50 U	50 U [50 U]	50 U [50 U]	NA
Acetone	ug/L	200 UY	25 U	NA	NA	20 UJ	20 U	25 U	NA	20 UJ	25 U	25 U	25 U	25 U [3.8 J]	25 U [25 U]	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	270 Y	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Bromoform	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Bromomethane	ug/L	20 UY	1 U	NA	NA	2 U	2 U	1 U	NA	2 U	1 UJ	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Carbon Disulfide	ug/L	50 UY	5 U	NA	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
Carbon Tetrachloride	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Chlorobenzene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Chloroethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Chloroform	ug/L	10 UY	1 U	NA	NA	2	1	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Chloromethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
cis-1,2-Dichloroethene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	12	3	61 [65]	1 U [1 U]	NA
cis-1,3-Dichloropropene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Cyclohexane	ug/L	30 Y	5 U	NA	NA	1 UJ	1 U	5 U	NA	1 UJ	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
Dibromochloromethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	190 Y	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	10 UY	5 U	NA	NA	1 U	1 U	5 U	NA	1 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
m&p-Xylene	ug/L	300 Y	2 U	NA	NA	1 U	1 U	2 U	NA	1 U	2 U	2 U	2 U	2 U [2 U]	2 U [2 U]	NA
Methyl acetate	ug/L	100 UY	5 U	NA	NA	10 U	10 U	5 U	NA	10 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
Methyl tert-butyl ether	ug/L	50 UY	5 U	NA	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
Methylcyclohexane	ug/L	200 UY	1 U	NA	NA	20 U	20 U	1 U	NA	20 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Methylene Chloride	ug/L	50 UY	5 U	NA	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	NA
Naphthalene	ug/L	50 UY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	20 Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	50 Y	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-08 06/05/13	RFI-36-09 09/27/01	RFI-36-09 06/14/02	RFI-36-09 03/25/03	RFI-36-09 04/23/07	RFI-36-09 09/23/09	RFI-36-10 09/28/01	RFI-36-10 03/27/03	RFI-36-10 04/23/07	RFI-36-11 09/21/01	RFI-36-12 09/28/01	RFI-36-13 11/09/01	RFI-36-13 06/24/02	RFI-36-14 10/02/01	RFI-36-14 02/20/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1.7	0.82 J	1.4 J [1.4 J]	1 U [1 U]	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	60 Y	1 U	NA	NA	0.2 J	0.2	1 U	NA	0.1 J	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
trans-1,2-Dichloroethene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	13 [14]	1 U [1 U]	NA
trans-1,3-Dichloropropene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1.2	29	32 [31]	1 U [1 U]	NA
Trichlorofluoromethane	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U	1 U [1 U]	1 U [1 U]	NA
Vinyl Chloride	ug/L	10 UY	1 U	NA	NA	1 U	1 U	1 U	NA	1 U	1 U	1 U	6.2	14 [14]	1 U [1 U]	NA
SVOC																
1,1'-Biphenyl	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U	NA	NA	NA	NA	4 U	NA	NA	4.4 U	4.4 U	4 U	NA	4.1 U [4 U]	NA
2,4-Dichlorophenol	ug/L	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	11 U	11 U	10 U	NA	10 U [10 U]	NA
2,4-Dimethylphenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2,4-Dinitrophenol	ug/L	NA	20 UJ	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
2,4-Dinitrotoluene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2,6-Dinitrotoluene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2-Chloronaphthalene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2-Chlorophenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2-Methylnaphthalene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2-Methylphenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
2-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
2-Nitrophenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
3&4-Methylphenol	ug/L	NA	10 UJ	NA	NA	NA	NA	10 UJ	NA	NA	11 UJ	11 UJ	10 UJ	NA	10 UJ [10 UJ]	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
4-Chloroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
4-Chlorophenyl-phenylether	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	R	5.6 U	5 U	NA	5.2 U [5 U]	NA
4-Nitroaniline	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
4-Nitrophenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 UJ	NA	21 U [20 U]	NA
Acenaphthene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Acenaphthylene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Acetophenone	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Anthracene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Atrazine	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Benzaldehyde	ug/L	NA	5 UJ	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Benzo(a)anthracene	ug/L	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	1.1 UJ	1.1 U	1 U	NA	1 U [1 U]	NA
Benzo(a)pyrene	ug/L	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2.2 U	2.2 U	2 U	NA	2.1 U [2 U]	NA
Benzo(b)fluoranthene	ug/L	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2.2 U	2.2 U	2 U	NA	2.1 U [2 U]	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Benzo(k)fluoranthene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
bis(2-Chloroethyl)ether	ug/L	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	1.1 U	1.1 U	1 U	NA	1 U [1 U]	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Butylbenzylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Caprolactam	ug/L	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	11 U	11 U	10 U	NA	10 U [10 U]	NA
Carbazole	ug/L	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	11 U	11 U	10 U	NA	10 U [10 U]	NA
Chrysene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2.2 U	2.2 U	2 U	NA	2.1 U [2 U]	NA
Dibenzofuran	ug/L	NA	4 U	NA	NA	NA	NA	4 U	NA	NA	4.4 U	4.4 U	4 U	NA	4.1 U [4 U]	NA
Diethylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	1.68 J	NA	5.2 U [5 U]	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-08 06/05/13	RFI-36-09 09/27/01	RFI-36-09 06/14/02	RFI-36-09 03/25/03	RFI-36-09 04/23/07	RFI-36-09 09/23/09	RFI-36-10 09/28/01	RFI-36-10 03/27/03	RFI-36-10 04/23/07	RFI-36-11 09/21/01	RFI-36-12 09/28/01	RFI-36-13 11/09/01	RFI-36-13 06/24/02	RFI-36-14 10/02/01	RFI-36-14 02/20/02
Dimethylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Di-n-Butylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	2.59 J	NA	5.2 U [5 U]	NA
Di-n-Octylphthalate	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Fluoranthene	ug/L	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2.2 U	2.2 U	2 U	NA	2.1 U [2 U]	NA
Fluorene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Hexachlorobenzene	ug/L	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	1.1 U	1.1 U	1 U	NA	1 U [1 U]	NA
Hexachlorobutadiene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Hexachlorocyclopentadiene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Hexachloroethane	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2.2 U	2.2 U	2 U	NA	2.1 U [2 U]	NA
Isophorone	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Methylphenols, Total	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Naphthalene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Nitrobenzene	ug/L	NA	2 U	NA	NA	NA	NA	2 U	NA	NA	2.2 U	2.2 U	2 U	NA	2.1 U [2 U]	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Pentachlorophenol	ug/L	NA	20 U	NA	NA	NA	NA	20 U	NA	NA	22 U	22 U	20 U	NA	21 U [20 U]	NA
Phenanthrene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Phenol	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
Pyrene	ug/L	NA	5 U	NA	NA	NA	NA	5 U	NA	NA	5.6 U	5.6 U	5 U	NA	5.2 U [5 U]	NA
PCB																
Aroclor-1016	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1221	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1232	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1242	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1248	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1254	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1260	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.1 U	0.11 U	0.11 U	NA	0.1 U [0.1 U]	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA	0.11 U	0.11 U	0.1 U	NA	0.1 U	NA
Inorganic																
Antimony	ug/L	NA	1.2 U	1.2 U	1.2 U	NA	NA	NA	0.44 J [1.2 U]	NA	NA	NA	0.7 J	1.2 U [0.34 J]	1.2 U [1.2 U]	NA
Arsenic	ug/L	NA	5 J	0.88 J	1 U	NA	NA	NA	1 U [1 U]	NA	NA	NA	1.9	1 U [1 U]	1.4 U [1.6 J]	NA
Barium	ug/L	NA	810 J	260	230 J	NA	NA	NA	140 [140]	NA	NA	NA	440	540 [460]	290 J [350]	NA
Beryllium	ug/L	NA	8.1 J	0.4 UJ	0.4 U	NA	NA	NA	0.4 U [0.4 U]	NA	NA	NA	0.4 U	0.4 U [0.4 U]	0.34 J [6.9]	NA
Cadmium	ug/L	NA	3.1 J	0.31	0.38	NA	NA	NA	0.24 [0.23]	NA	NA	NA	0.54 J	0.49 [0.48]	0.38 J [0.75]	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	190	3.5	6	NA	NA	NA	3.2 [3.1]	NA	NA	NA	1.1	0.46 J [0.4 J]	0.92 [1.6]	NA
Cobalt	ug/L	NA	3.5	0.48	0.7	NA	NA	NA	2.3 [2.3]	NA	NA	NA	4.9	6.9 [5.5]	2.4 [3.6]	NA
Copper	ug/L	NA	14	2.9 U	2.6	NA	NA	NA	6.9 [5.5]	NA	NA	NA	12	14 [8.1]	2.9 [3.8]	NA
Cyanide (total)	ug/L	NA	16	NA	9.3	NA	NA	15	10 [11]	NA	5 U	5 U	5 U	5 U [5 U]	1.5 J [5 U]	NA
Lead	ug/L	NA	0.77	0.57	0.24 J	NA	NA	NA	0.52 [0.42]	NA	NA	NA	0.4 U	0.093 J [0.12 J]	0.38 J [0.17 J]	NA
Manganese	ug/L	NA	35 J	9.7 J	12	NA	NA	NA	430 [440]	NA	NA	NA	2,000	2,200 J [1,900]	1,500 J [2,500]	620
Mercury	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-08 06/05/13	RFI-36-09 09/27/01	RFI-36-09 06/14/02	RFI-36-09 03/25/03	RFI-36-09 04/23/07	RFI-36-09 09/23/09	RFI-36-10 09/28/01	RFI-36-10 03/27/03	RFI-36-10 04/23/07	RFI-36-11 09/21/01	RFI-36-12 09/28/01	RFI-36-13 11/09/01	RFI-36-13 06/24/02	RFI-36-14 10/02/01	RFI-36-14 02/20/02
Nickel	ug/L	NA	27	4.7	11	NA	NA	NA	13 [12]	NA	NA	NA	15	15 [13]	11 [17]	5.5
Selenium	ug/L	NA	1.4 U	1.4 U	1.6 U	NA	NA	NA	2.2 J [1.7 J]	NA	NA	NA	35 J	1.4 U [0.38 J]	0.49 J [4.8 J]	NA
Silver	ug/L	NA	1.5 J	0.4 U	0.085 J	NA	NA	NA	0.12 J [0.4 U]	NA	NA	NA	0.61 J	0.46 UJ [0.57 UJ]	0.4 U [0.4 U]	NA
Thallium	ug/L	NA	0.62 U	0.2 U	0.13 J	NA	NA	NA	0.075 J [0.062 J]	NA	NA	NA	0.067 J	0.2 U [0.2 U]	0.2 U [0.27 U]	NA
Vanadium	ug/L	NA	380	0.8 U	0.8 U	NA	NA	NA	0.8 U [0.8 U]	NA	NA	NA	0.8 U	0.8 U [0.8 U]	0.8 U [0.8 U]	NA
Zinc	ug/L	NA	39 J	16	13 U	NA	NA	NA	20 [15]	NA	NA	NA	17	13 [12]	14 J [21]	NA
Miscellaneous																
Fluorine	ug/L	NA	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	1.2 U	1.2 U	NA	NA	NA	1.2 U	NA	NA	1.2 U	1.2 U	1.2 U	1.2 U [1.2 U]	1.2 U [1.2 U]	NA
Arsenic (Dissolved)	ug/L	NA	5.9	2.6 J	NA	NA	NA	1 U	NA	NA	4.7	2.2 U	2.2 J	1 U [1 U]	1 U [1 U]	NA
Barium (Dissolved)	ug/L	NA	550	260	NA	NA	NA	110	NA	NA	61	50	340	420 [420]	250 [240]	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	0.4 UJ	NA	NA	NA	0.4 U	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U [0.4 U]	NA
Cadmium (Dissolved)	ug/L	NA	0.99	0.49	NA	NA	NA	0.22	NA	NA	0.2 U	0.2 U	0.38	0.41 [0.42]	0.39 [0.37]	NA
Chromium Total (Dissolved)	ug/L	NA	2.8	4.2	NA	NA	NA	0.6 U	NA	NA	0.6 U	0.6 U	13	0.6 U [0.65]	0.6 U [0.6 U]	NA
Cobalt (Dissolved)	ug/L	NA	0.82	0.58	NA	NA	NA	1.6	NA	NA	0.63	0.58	4	5 [5.3]	2 [2.1]	NA
Copper (Dissolved)	ug/L	NA	2.5	5	NA	NA	NA	2.5 U	NA	NA	4	0.6 U	5.1	5.4 [5.9]	5 U [1.8 U]	NA
Cyanide (dissolved)	ug/L	NA	17	NA	NA	NA	NA	16	NA	NA	5 U	1 J	1.2 J	5 U [5 U]	1.3 J [1.5 J]	NA
Lead (Dissolved)	ug/L	NA	0.4 U	0.76	NA	NA	NA	0.4 U	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]	0.4 U [0.4 U]	NA
Manganese (Dissolved)	ug/L	NA	23 J	12	NA	NA	NA	720	NA	NA	330	200	1,600	1,700 J [1,800 J]	1,500 [1,500]	650
Mercury (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA
Nickel (Dissolved)	ug/L	NA	15	4.6	NA	NA	NA	5.8	NA	NA	4.1	4	13	11 [12]	7.2 [170]	5.3
Selenium (Dissolved)	ug/L	NA	9.4	6.1 J	NA	NA	NA	19	NA	NA	1.4 U	2.2 J	1.4 U	1.7 [1.5]	35 [32]	NA
Silver (Dissolved)	ug/L	NA	0.4 UJ	0.69 J	NA	NA	NA	0.4 U	NA	NA	0.4 U	0.4 U	0.4 U	0.71 UJ [0.88 J]	0.4 U [0.4 U]	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U [0.2 U]	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	0.8 U	NA	NA	NA	0.8 U	NA	NA	0.8 U	0.8 U	2.9 J	0.8 U [0.8 U]	0.8 U [0.8 U]	NA
Zinc (Dissolved)	ug/L	NA	15	21	NA	NA	NA	6.8	NA	NA	11	6.6	16	22 [14]	17 [14]	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	10.79	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	187.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	7.52	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	18.53	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	2.09	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	4,250	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-14 06/17/02	RFI-36-14 03/25/03	RFI-36-14 10/11/04	RFI-36-14 11/02/06	RFI-36-14 10/26/07	RFI-36-14 09/15/08	RFI-36-14 09/23/09	RFI-36-14 10/27/11	RFI-36-14 11/07/12	RFI-36-14-ULF 10/02/01	RFI-36-17 09/28/01	RFI-36-17 10/07/04	RFI-36-17 02/28/05	RFI-36-17 06/10/05	RFI-36-18 09/28/01	RFI-36-18 10/07/04
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	NA	30 U	30 U	30 U	30 U	30 U	30 U	30 U	NA	1 U	30 U	30 U	200 U	1 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	22 J	790	292	1 U	3 J
1,1-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 J	10	4 J	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	5 U	2 U	2 U	10 U	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	2	5 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	0.2	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	NA	30 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	25 U	30 U	30 U	100 U	25 U	30 U
2-Hexanone	ug/L	50 U	NA	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	NA	50 U	50 U	50 UJ	300 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	1 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	50 U	1 U	1 U	5 U	50 U	1 U
Acetone	ug/L	25 U	NA	30 U	20 U	20 U	20 U	20 U	20 U	70	NA	25 U	30 U	30 U	100 U	25 U	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Bromoform	ug/L	1 U	NA	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	5 U	1 U	1 UJ
Bromomethane	ug/L	1 U	NA	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	NA	1 U	2 UJ	R	10 U	1 U	2 UJ
Carbon Disulfide	ug/L	5 U	NA	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 UJ	5 U	30 U	5 U	5 UJ
Carbon Tetrachloride	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Chlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Chloroethane	ug/L	1 U	NA	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	43 J	60	40	1 U	1 UJ
Chloroform	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	0.2 J	5 U	1 U	1 U
Chloromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	0.4 J	5 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	NA	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Cyclohexane	ug/L	5 U	NA	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	NA	5 U	1 U	1 U	5 U	5 U	1 U
Dibromochloromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	5 U	1 U	1 UJ
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	5 U	5 U	1 U
m&p-Xylene	ug/L	2 U	NA	1 U	1 U	1 U	1 U	1 U	2 U	2 U	NA	2 U	1 U	1 U	5 U	2 U	1 U
Methyl acetate	ug/L	5 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	5 U	10 U	10 U	50 U	5 U	10 U
Methyl tert-butyl ether	ug/L	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	2 J	2 J	30 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	NA	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	1 U	20 U	20 U	100 U	1 U	20 U
Methylene Chloride	ug/L	5 UJ	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	1 J	1 J	30 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 UJ	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	0.2	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.74 J	0.3 J	2	5 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	5 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	82	198	107	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-14 06/17/02	RFI-36-14 03/25/03	RFI-36-14 10/11/04	RFI-36-14 11/02/06	RFI-36-14 10/26/07	RFI-36-14 09/15/08	RFI-36-14 09/23/09	RFI-36-14 10/27/11	RFI-36-14 11/07/12	RFI-36-14-ULF 10/02/01	RFI-36-17 09/28/01	RFI-36-17 10/07/04	RFI-36-17 02/28/05	RFI-36-17 06/10/05	RFI-36-18 09/28/01	RFI-36-18 10/07/04
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	1.2 U	1.2 U [1.2 U]	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	0.48 J	3.8 [3.5]	NA	NA	NA	NA	NA	NA	NA	1.8 U	NA	NA	NA	NA	NA	NA
Barium	ug/L	110	26 [26]	NA	NA	NA	NA	NA	NA	NA	560 J	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	0.4 UJ	0.4 U [0.4 U]	1 U	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	0.1 J	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	0.72 J	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	0.48 J	0.77 [0.85]	NA	NA	NA	NA	NA	NA	NA	1.1 J	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	0.56	1.9 [1.8]	NA	NA	NA	NA	NA	NA	NA	5 J	NA	NA	NA	NA	NA	NA
Copper	ug/L	2.8 U	2.3 [2.4]	NA	NA	NA	NA	NA	NA	NA	27 J	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	29	3 J [3.3 J]	NA	NA	NA	NA	NA	NA	NA	1.2 J	NA	NA	NA	NA	NA	NA
Lead	ug/L	0.25 J	0.4 U [0.34 J]	NA	NA	NA	NA	NA	NA	NA	0.54 J	NA	NA	NA	NA	NA	NA
Manganese	ug/L	280 J	720 [720]	683	NA	NA	NA	NA	NA	NA	3,700 J	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-14 06/17/02	RFI-36-14 03/25/03	RFI-36-14 10/11/04	RFI-36-14 11/02/06	RFI-36-14 10/26/07	RFI-36-14 09/15/08	RFI-36-14 09/23/09	RFI-36-14 10/27/11	RFI-36-14 11/07/12	RFI-36-14-ULF 10/02/01	RFI-36-17 09/28/01	RFI-36-17 10/07/04	RFI-36-17 02/28/05	RFI-36-17 06/10/05	RFI-36-18 09/28/01	RFI-36-18 10/07/04
Nickel	ug/L	3.3	11 [11]	12	NA	NA	NA	NA	NA	NA	21 J	NA	NA	NA	NA	NA	NA
Selenium	ug/L	3.2	1.6 U [1.6 U]	NA	NA	NA	NA	NA	NA	NA	2.8 U	NA	NA	NA	NA	NA	NA
Silver	ug/L	0.4 U	0.37 J [0.12 J]	NA	NA	NA	NA	NA	NA	NA	1.5 J	NA	NA	NA	NA	NA	NA
Thallium	ug/L	0.088 J	0.052 J [0.2 U]	NA	NA	NA	NA	NA	NA	NA	0.24 J	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	0.8 U	0.12 J [0.8 U]	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA
Zinc	ug/L	32	8.3 [8.9]	NA	NA	NA	NA	NA	NA	NA	32 J	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	4.471	6.61	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	6.6	143.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	6.89	7.41	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	65	74	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	17.56	16.78	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	2.7	0.66	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	950	820	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-18 06/08/05	RFI-36-19 09/28/01	RFI-36-19 10/06/04	RFI-36-19 12/08/05	RFI-36-19 06/26/07	RFI-36-19 10/30/07	RFI-36-19 03/20/08	RFI-36-19 06/18/08	RFI-36-19 09/17/08	RFI-36-19 12/04/08	RFI-36-19 09/25/09	RFI-36-19 10/15/10	RFI-36-19 10/25/11	RFI-36-19 11/08/12	RFI-36-20 09/28/01	RFI-36-20 06/22/02	RFI-36-20 10/06/04
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	1 U	30 U	30 U	30 UJ	30 U	30 U	30 U	30 U	30 U	30 U	NA	30 U	30 U	1 U	NA	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,1-Dichloroethane	ug/L	11	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	5 U	NA	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	NA	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	25 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	30 U	20 U	20 U	25 U	NA	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	NA	50 UJ
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	50 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	50 U	NA	1 U
Acetone	ug/L	30 U	25 U	30 U	30 U	R	20 U	20 U	20 U	20 U	20 UJ	20 U	50 U	20 U	20 U	25 U	NA	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Bromoform	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 UJ
Bromomethane	ug/L	2 U	1 U	2 UJ	2 U	2 U	2 U	2 UJ	2 UJ	2 UJ	2 U	2 U	5 U	2 U	2 U	1 U	NA	2 UJ
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Chloroethane	ug/L	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	5 U	1 U	1 U	1 U	NA	1 UJ
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	NA	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Cyclohexane	ug/L	1 U	5 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	5 U	NA	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	NA	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	R	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	NA	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	5 U	NA	1 U
m&p-Xylene	ug/L	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	NA	1 U
Methyl acetate	ug/L	10 U	5 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	5 U	NA	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Methylcyclohexane	ug/L	20 U	1 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NA	20 U	20 U	1 U	NA	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-18 06/08/05	RFI-36-19 09/28/01	RFI-36-19 10/06/04	RFI-36-19 12/08/05	RFI-36-19 06/26/07	RFI-36-19 10/30/07	RFI-36-19 03/20/08	RFI-36-19 06/18/08	RFI-36-19 09/17/08	RFI-36-19 12/04/08	RFI-36-19 09/25/09	RFI-36-19 10/15/10	RFI-36-19 10/25/11	RFI-36-19 11/08/12	RFI-36-20 09/28/01	RFI-36-20 06/22/02	RFI-36-20 10/06/04
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Trichlorofluoromethane	ug/L	1 U	3.2	0.8 J	1 U	1 UJ	3 J	2	2	2	2	1	1 U	2	1 U	2.6	NA	2
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1 U	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21 U	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.56 J	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 J	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.6	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.089 J	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.54 J	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.6	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.9	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.48 J	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6 U	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	0.684	0.917	1.179	0.563	1.061	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	140.5	134.1	101	120.9	217.3	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	7.17	6.82	6.83	6.85	6.92	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	40	55	60	28	74	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	8.42	13.14	19.16	13.07	15.73	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	0.98	0.41	0.25	0.44	0.87	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	6,020	4,750	2,720	3,070	5,060	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-20 10/14/10	RFI-36-23 02/20/02	RFI-36-23 06/19/02	RFI-36-24 10/05/01	RFI-36-24 06/19/02	RFI-36-25R 02/26/02	RFI-36-25R 06/19/02	RFI-36-27 02/20/02	RFI-36-29 10/03/01	RFI-36-29R 02/26/02	RFI-36-29R 06/20/02	RFI-36-29R 04/03/03	RFI-36-31 10/05/01	RFI-36-32 09/28/01	RFI-36-32 12/19/02	RFI-36-32 04/02/03
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 UJ [1 U]	1 U	1 U	1 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1.1	1 U	1 U	NA	1 U	1 U	1 UJ [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,1-Dichloroethane	ug/L	1 U	1.7	1 U	68	6.4	1.8	NA	0.83 J	49	24 [26]	18 J [28 J]	81	6.1	1 U	NA	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	13	1.6	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	2.1	1 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 UJ [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,2-Dichloroethane	ug/L	1 U	0.84 J	1 U	1 U	1 U	1 U	NA	1 U	2.1	2 [2.4]	1.7 [2.7]	6.9	1 U	1 U	NA	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	25 U	25 U	25 U	25 U	25 U	NA	25 U	1.2 J	25 U [25 U]	2.7 J [25 U]	25 U	25 U	25 U	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U [50 U]	50 U [50 U]	50 U	50 U	50 U	NA	NA
2-Methylnaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 UJ	50 U	NA	50 U	50 U	50 U [50 U]	50 U [50 U]	50 U	50 U	50 U	NA	NA
Acetone	ug/L	50 U	25 U	25 U	25 U	1.2 J	25 U	NA	25 U	25 U	25 U [25 U]	25 U [25 U]	25 U	25 U	25 U	NA	NA
Acrylonitrile	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	0.6 J	1 U	1 U	NA	1 U	87	45 J [47]	50 J [85 J]	360 D	1 U	0.53 J	NA	NA
Bromobenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 UJ [1 U]	1 U	1 U	1 U	NA	NA
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 UJ [1 U]	1 U	1 U	1 U	NA	NA
Bromomethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Carbon Disulfide	ug/L	5 U	5 U	0.85 J	5 U	0.97 J	5 U	NA	5 U	5 U	5 U [5 U]	5 U [2.5 J]	5 U	5 U	5 U	NA	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 UJ [1 U]	1 U	1 U	1 U	NA	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloroethane	ug/L	5 U	1 U	21	1 U	1 U	1 U	NA	1 U	1.3	40 [42]	26 J [40 J]	93	1 U	1 U	NA	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Chloromethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	150 D	1 U	1 U	NA	1 U	7.2	5.8 J [6.6 J]	4.3 J [6.8 J]	18	1 U	1 U	NA	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Cyclohexane	ug/L	NA	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	NA	NA
Dibromochloromethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 UJ [1 U]	1 U	1 U	1 U	NA	NA
Dibromomethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Diethyl ether	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Hexachloroethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	NA	NA
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	0.62 J	NA	2 U	2 U	0.8 J [0.8 J]	2 U [2 U]	2 U	2 U	2 U	NA	NA
Methyl acetate	ug/L	NA	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U [5 U]	5 UJ [5 U]	5 U	5 U	5 U	NA	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	15	7.1 J [7.2]	5.7 [7.7]	12	5 U	5 U	NA	NA
Methylcyclohexane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Methylene Chloride	ug/L	5 U	5 U	5 UJ	5 U	5 UJ	5 U	NA	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	NA	NA
Naphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
p-Isopropyltoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-20 10/14/10	RFI-36-23 02/20/02	RFI-36-23 06/19/02	RFI-36-24 10/05/01	RFI-36-24 06/19/02	RFI-36-25R 02/26/02	RFI-36-25R 06/19/02	RFI-36-27 02/20/02	RFI-36-29 10/03/01	RFI-36-29R 02/26/02	RFI-36-29R 06/20/02	RFI-36-29R 04/03/03	RFI-36-31 10/05/01	RFI-36-32 09/28/01	RFI-36-32 12/19/02	RFI-36-32 04/02/03
tert-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 UJ	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 UJ	1 U	NA	NA
Tetrahydrofuran	ug/L	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1.7 U	2.6 J [2.9]	0.57 J [1]	1 U	1 U	1 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	6.4	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	99	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	NA	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	4.6	1 U	1 U	NA	1 U	4	58 [60]	29 J [50 J]	78 D	1 U	1 U	NA	NA
SVOC																	
1,1'-Biphenyl	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	4.4 U	NA	4 U	NA	4 U	NA	4 U	NA	4 U [4 U]	NA	NA	4 U	4.1 U	NA	NA
2,4-Dichlorophenol	ug/L	NA	11 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U [10 U]	NA	NA	10 U	10 U	NA	NA
2,4-Dimethylphenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2,4-Dinitrophenol	ug/L	NA	22 U	NA	20 U	NA	20 UJ	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
2,4-Dinitrotoluene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2-Chloronaphthalene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2-Chlorophenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2-Methylnaphthalene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2-Methylphenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
2-Nitroaniline	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
2-Nitrophenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
3&4-Methylphenol	ug/L	NA	11 UJ	NA	10 UJ	NA	10 UJ	NA	10 UJ	NA	10 UJ [10 UJ]	NA	NA	10 UJ	10 UJ	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 UJ [20 U]	NA	NA	20 U	21 U	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
4-Chloroaniline	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
4-Nitroaniline	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
4-Nitrophenol	ug/L	NA	22 U	NA	20 U	NA	20 UJ	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
Acenaphthene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Acenaphthylene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Acetophenone	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Anthracene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Atrazine	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Benzaldehyde	ug/L	NA	5.6 UJ	NA	5 U	NA	5 U	NA	5 UJ	NA	5 U [5 U]	NA	NA	5 U	5.1 UJ	NA	NA
Benzo(a)anthracene	ug/L	NA	1.1 U	NA	1 U	NA	1 U	NA	1 U	NA	1 UJ [1 U]	NA	NA	1 U	1 U	NA	NA
Benzo(a)pyrene	ug/L	NA	2.2 U	NA	2 U	NA	2 U	NA	2 U	NA	0.55 J [2 U]	NA	NA	2 U	2.1 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	2.2 U	NA	2 U	NA	2 U	NA	2 U	NA	2 UJ [2 U]	NA	NA	2 U	2.1 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 UJ [5 U]	NA	NA	5 U	5.1 U	NA	NA
Benzo(k)fluoranthene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	0.72 J [5 U]	NA	NA	5 U	5.1 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	1.1 U	NA	1 U	NA	1 U	NA	1 U	NA	1 U [1 U]	NA	NA	1 U	1 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 UJ [5 U]	NA	NA	5 U	5.1 U	NA	NA
Butylbenzylphthalate	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 UJ [5 U]	NA	NA	5 U	5.1 U	NA	NA
Caprolactam	ug/L	NA	11 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U [10 U]	NA	NA	10 U	10 U	NA	NA
Carbazole	ug/L	NA	11 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U [10 U]	NA	NA	10 U	10 U	NA	NA
Chrysene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 UJ [5 U]	NA	NA	5 U	5.1 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	2.2 U	NA	2 U	NA	2 U	NA	2 U	NA	2 UJ [2 U]	NA	NA	2 U	2.1 U	NA	NA
Dibenzofuran	ug/L	NA	4.4 U	NA	4 U	NA	4 U	NA	4 U	NA	4 U [4 U]	NA	NA	4 U	4.1 U	NA	NA
Diethylphthalate	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	1.19 J	NA	5 U [1.19 J]	NA	NA	5 U	5.1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-20 10/14/10	RFI-36-23 02/20/02	RFI-36-23 06/19/02	RFI-36-24 10/05/01	RFI-36-24 06/19/02	RFI-36-25R 02/26/02	RFI-36-25R 06/19/02	RFI-36-27 02/20/02	RFI-36-29 10/03/01	RFI-36-29R 02/26/02	RFI-36-29R 06/20/02	RFI-36-29R 04/03/03	RFI-36-31 10/05/01	RFI-36-32 09/28/01	RFI-36-32 12/19/02	RFI-36-32 04/02/03
Dimethylphthalate	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Di-n-Butylphthalate	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Di-n-Octylphthalate	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 UJ [5 U]	NA	NA	5 U	5.1 U	NA	NA
Fluoranthene	ug/L	NA	2.2 U	NA	2 U	NA	2 U	NA	2 U	NA	2 U [2 U]	NA	NA	2 U	2.1 U	NA	NA
Fluorene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Hexachlorobenzene	ug/L	NA	1.1 U	NA	1 U	NA	1 U	NA	1 U	NA	1 U [1 U]	NA	NA	1 U	1 U	NA	NA
Hexachlorobutadiene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	R	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Hexachloroethane	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2.2 U	NA	2 U	NA	2 U	NA	2 U	NA	2 UJ [2 U]	NA	NA	2 U	2.1 U	NA	NA
Isophorone	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Methylphenols, Total	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Naphthalene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Nitrobenzene	ug/L	NA	2.2 U	NA	2 U	NA	2 U	NA	2 U	NA	2 U [2 U]	NA	NA	2 U	2.1 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Pentachlorophenol	ug/L	NA	22 U	NA	20 U	NA	20 U	NA	20 U	NA	20 U [20 U]	NA	NA	20 U	21 U	NA	NA
Phenanthrene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Phenol	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 U [5 U]	NA	NA	5 U	5.1 U	NA	NA
Pyrene	ug/L	NA	5.6 U	NA	5 U	NA	5 U	NA	5 U	NA	5 UJ [5 U]	NA	NA	5 U	5.1 U	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1221	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1232	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1242	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1248	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1254	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1260	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]	NA	NA	0.1 U	0.1 U	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA	NA	1 J [1.2 U]	0.39 J	NA	NA	1.4 J	1.2 U
Arsenic	ug/L	NA	NA	93	NA	NA	NA	3.6	NA	NA	NA	85 [100]	140	NA	NA	76 J	37
Barium	ug/L	NA	NA	75	NA	NA	NA	390	NA	NA	NA	150 [190]	180	NA	NA	320 J	230
Beryllium	ug/L	NA	NA	0.4 UJ	NA	NA	NA	0.4 UJ	NA	NA	NA	0.4 U [0.4 U]	0.4 U	NA	NA	0.45 J	0.4 U
Cadmium	ug/L	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA	NA	0.25 [0.27]	0.2 U	NA	NA	3.2 J	0.16 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	1	NA	NA	NA	1	NA	NA	NA	1.7 [1.6]	1	NA	NA	25 J	1.9
Cobalt	ug/L	NA	NA	0.9	NA	NA	NA	0.76	NA	NA	NA	1.4 [1.8]	2.1	NA	NA	10 J	3.7
Copper	ug/L	NA	NA	4.4 J	NA	NA	NA	10 J	NA	NA	NA	8.9 [6.5]	5.1	NA	NA	70 J	3.4
Cyanide (total)	ug/L	NA	5 U	5 U	5 U	NA	5 U	5 U	5 U	NA	5 U [5 U]	5 U [5 U]	5 U	5 U	0.96 J	5 U	5 U
Lead	ug/L	NA	NA	0.17 J	NA	NA	NA	0.44	NA	NA	NA	1.9 [2.1]	1.3	NA	NA	22 J	0.2 J
Manganese	ug/L	NA	NA	98	NA	NA	NA	570	NA	NA	NA	120 [150]	100 J	NA	NA	2,200 J	1,200 J
Mercury	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U [0.2 U]	0.2 U [0.193 J]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-20 10/14/10	RFI-36-23 02/20/02	RFI-36-23 06/19/02	RFI-36-24 10/05/01	RFI-36-24 06/19/02	RFI-36-25R 02/26/02	RFI-36-25R 06/19/02	RFI-36-27 02/20/02	RFI-36-29 10/03/01	RFI-36-29R 02/26/02	RFI-36-29R 06/20/02	RFI-36-29R 04/03/03	RFI-36-31 10/05/01	RFI-36-32 09/28/01	RFI-36-32 12/19/02	RFI-36-32 04/02/03
Nickel	ug/L	NA	NA	10	NA	NA	NA	7.4	NA	NA	NA	13 [17]	13	NA	NA	34 J	21
Selenium	ug/L	NA	NA	1.4 U	NA	NA	NA	1.4 U	NA	NA	NA	0.69 J [0.43 J]	1.6 U	NA	NA	1.6 U	1.6 U
Silver	ug/L	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	0.27 J [0.4 UJ]	0.4 U	NA	NA	0.15 J	0.4 U
Thallium	ug/L	NA	NA	0.2 U	NA	NA	NA	0.057 J	NA	NA	NA	0.19 J [0.12 J]	0.29	NA	NA	1.3 J	0.16 J
Vanadium	ug/L	NA	NA	3.8	NA	NA	NA	0.5 J	NA	NA	NA	1 [1.2]	1.3	NA	NA	25 J	0.8 U
Zinc	ug/L	NA	NA	8.5 J	NA	NA	NA	30 J	NA	NA	NA	89 J [89 J]	15	NA	NA	130 J	16
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	1.2 U	NA	1.2 UJ	NA	1.9 U	NA	1.2 U [1.2 U]	NA	1.2 U	1.2 U	1.2 U	NA	NA
Arsenic (Dissolved)	ug/L	NA	77	NA	1.6	NA	5 J	NA	76	NA	79 [81]	NA	50	4.7	50	NA	NA
Barium (Dissolved)	ug/L	NA	42	NA	R	NA	420 J	NA	430	NA	150 [160]	NA	160	R	210	NA	NA
Beryllium (Dissolved)	ug/L	NA	1.7 J	NA	0.4 UJ	NA	6.7 J	NA	30 J	NA	14 J [11 J]	NA	0.4 U	0.4 UJ	0.4 U	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	0.32	NA	0.56 J	NA	2.2 J	NA	0.99 J [0.71 J]	NA	0.2 U	0.2 U	0.2 U	NA	NA
Chromium Total (Dissolved)	ug/L	NA	7	NA	0.6 UJ	NA	16 J	NA	9.9	NA	13 [12]	NA	6.5	0.6 UJ	0.6 U	NA	NA
Cobalt (Dissolved)	ug/L	NA	0.32	NA	0.65	NA	1.1 J	NA	4.1	NA	1.6 [1.3]	NA	1.5	1.2	3.3	NA	NA
Copper (Dissolved)	ug/L	NA	0.64	NA	5.5 J	NA	3.1 J	NA	9.7 J	NA	4.3 J [3.2 J]	NA	1.4	6 J	2.8	NA	NA
Cyanide (dissolved)	ug/L	NA	5 U	NA	5 U	NA	1.6 J	NA	5 U	NA	5 U [5 U]	NA	5 U	5 U	1.1 J	NA	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	0.91	NA	0.4 UJ	NA	1.1 J	NA	0.47 [0.4 U]	NA	0.18 J	0.4 U	1.8	NA	NA
Manganese (Dissolved)	ug/L	NA	58	NA	250	NA	630 J	NA	270	NA	110 [110]	NA	86	710	1,600 J	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.2 U	0.2 U	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	NA	12	NA	3.6	NA	12 J	NA	52	NA	15 [14]	NA	9.7	5.3	13	NA	NA
Selenium (Dissolved)	ug/L	NA	1.4 U	NA	1.4 U	NA	2.4 J	NA	6 U	NA	1.5 J [1.4 U]	NA	1.6 U	1.4 U	1.4 U	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 UJ	NA	0.4 UJ	NA	1.2 J	NA	1.7 J	NA	0.52 J [0.52 J]	NA	0.15 J	0.4 UJ	0.4 U	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	0.2 U	NA	0.35 J	NA	0.91 U	NA	0.63 [0.35]	NA	0.2 U	0.2 U	0.2 U	NA	NA
Vanadium (Dissolved)	ug/L	NA	1.7	NA	0.8 U	NA	2.7 J	NA	0.8 U	NA	1.5 J [1.8 J]	NA	1.7	0.8 U	0.8 U	NA	NA
Zinc (Dissolved)	ug/L	NA	13	NA	19 J	NA	14 J	NA	29	NA	19 [11]	NA	11	8 J	19 J	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-35 09/27/01	RFI-36-35 06/18/02	RFI-36-35 06/05/13	RFI-36-37 09/28/01	RFI-36-37 06/22/02	RFI-36-37 06/10/05	RFI-36-37 06/26/07	RFI-36-37 10/30/07	RFI-36-37 09/18/08	RFI-36-37 09/25/09	RFI-36-37 10/15/10	RFI-36-37 11/14/12	RFI-36-37 06/07/13	RFI-36-43 02/26/02	RFI-36-44 02/20/02	RFI-36-44 06/20/02
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	270 D	13 X [23]	1 U	1 U	0.6 J	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	51	33
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	200 UX [30 U]	1 U	1 U	30 U	30 UJ	30 U	30 U	30 U	NA	30 U	30 U	1,000 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
1,1-Dichloroethane	ug/L	61	780 D	14 X [16]	220 D	53	1	1 U	1 U	1 U	1 U	1 U	12	8	1,000 U	30	25
1,1-Dichloroethene	ug/L	1 U	95	5 UX [1 U]	5.7	1.5	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	2.2	1.7
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	10 UX [2 U]	5 U	5 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	5,000 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	5 U	1 U	1 U	1,000 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	9.3	5 UX [1 U]	4	1.7	1 U	1 U	1	1	1 U	3 U	1 U	1 U	1,000 U	0.61 J	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	0.2	1 U	1 U	1 U	1,000 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	100 UX [20 U]	25 U	2.6 J	30 U	20 U	20 U	20 U	20 U	30 U	20 U	20 U	25,000 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	300 UX [50 U]	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50,000 U	16 J	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 UX [10 U]	50 U	50 U	1 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	50,000 U	50 U	50 U
Acetone	ug/L	25 U	3.4 J	100 UX [20 U]	25 U	25 U	30 U	R	20 U	20 U	20 U	50 U	20 U	20 U	25,000 U	25 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Benzene	ug/L	0.52 J	2.3	5 UX [1 U]	3.2	1 U	9	9	13	15	15	48	2	11	6,000 D	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Bromomethane	ug/L	1 U	1 U	10 UX [2 U]	1 U	1 U	2 U	2 U	2 U	2 UJ	2 U	5 U	2 U	2 U	1,000 U	1 UJ	1 U
Carbon Disulfide	ug/L	5 U	5 U	30 UX [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5,000 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Chloroethane	ug/L	50	1,100 D	5 UX [1 U]	180 D	100	5 J	1 UJ	1 U	1 UJ	1 U	5 U	128	26	1,000 U	12	6.4
Chloroform	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	5 U	1 U	1 U	1,000 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	11	17	5 UX [1 U]	2.8	1	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	0.83 J	0.73 J
cis-1,3-Dichloropropene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	5 UX [1 U]	5 U	5 U	1 U	1 UJ	1 U	1 U	1 U	NA	1 U	1 U	5,000 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1,000 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	R	1 U	1 U	1 U	5 U	1 U	1 U	1,000 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,300 D	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 UX [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	5,000 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	10 UX [2 U]	2 U	2 U	1 U	0.3 J	1 U	1 U	1 U	2 U	2 U	2 U	3,400 D	2 U	2 U
Methyl acetate	ug/L	5 U	5 U	50 UX [10 U]	5 U	5 U	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	5,000 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5.7	30 UX [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5,000 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	100 UX [20 U]	1 U	1 U	20 U	20 U	20 U	20 U	20 U	NA	20 U	20 U	1,000 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 U	30 UX [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5,000 U	5 U	5 U
Naphthalene	ug/L	NA	NA	30 UX [5 U]	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	5 UX [1 U]	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,600 D	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U

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tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 UJ	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	0.2 J	1 U	0.2	1 U	1 U	1 U	20,000 D	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1.5	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Trichloroethene	ug/L	2.7	1 U	8 X [8]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	5.4	3.1
Trichlorofluoromethane	ug/L	1 U	1 U	5 UX [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	1 U	1 U
Vinyl Chloride	ug/L	0.83 J	93	5 UX [1 U]	2.7	0.56 J	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1,000 U	2	1.6
SVOC																	
1,1'-Biphenyl	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4.1 U	NA	NA	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	10 U	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	10 UJ	NA	NA	11 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	5.1 UJ	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	5.1 U	NA	NA	5.3 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	1 U	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	2.1 U	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2.1 U	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	1 U	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	10 U	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2.1 U	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4.1 U	NA	NA	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Dimethylphthalate	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	2.1 U	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	1 U	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2.1 U	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	2.1 U	NA	NA	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	21 U	NA	NA	21 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.1 U	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	0.71 U	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20 J	15	3	NA	NA	NA	NA	NA	NA	NA	NA	6	NA	NA	NA	1.1 J
Barium	ug/L	700 J	420	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	3.6 J	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	1.3 J	0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	220	3	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	9	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	11	6.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	1.6 J	2.3 J	NA	1.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	2.5	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 U	NA	NA	NA	NA
Manganese	ug/L	850 J	1,100	753 [759]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-35 09/27/01	RFI-36-35 06/18/02	RFI-36-35 06/05/13	RFI-36-37 09/28/01	RFI-36-37 06/22/02	RFI-36-37 06/10/05	RFI-36-37 06/26/07	RFI-36-37 10/30/07	RFI-36-37 09/18/08	RFI-36-37 09/25/09	RFI-36-37 10/15/10	RFI-36-37 11/14/12	RFI-36-37 06/07/13	RFI-36-43 02/26/02	RFI-36-44 02/20/02	RFI-36-44 06/20/02
Nickel	ug/L	31	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	1.4 U	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	0.96 J	0.4 U	0.5 U [0.5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	0.58 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	210	2.5	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	34 J	24 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	1.2 U	1.2 U	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	5	12	NA	3.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7 J	NA
Barium (Dissolved)	ug/L	490	340	NA	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	0.4 U	0.4 UJ	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	0.31	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	2.2	5.4	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	6.3	3.2	NA	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	7.8	7.2	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	1.5 J	2.3 J	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	3.9	0.91	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	500 J	890 J	NA	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	23	31	NA	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	1.4 U	2.2	NA	7.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.4 U	0.44	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	1.7	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	17 J	24	NA	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	1.352	1.158	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	20 -	17.7	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	7.02	7.37	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	60	70	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	14.17	14.89	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1.87	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5,120	6,920	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-44 03/25/03	RFI-36-44 10/07/04	RFI-36-44 06/08/05	RFI-36-44 11/09/12	RFI-36-44 06/07/13	RFI-36-45 02/20/02	RFI-36-45 06/20/02	RFI-36-45 03/25/03	RFI-36-45 06/10/05	RFI-36-46 02/25/02	RFI-36-46 06/17/02	RFI-36-46 03/25/03	RFI-36-46 10/11/04	RFI-36-46 06/09/05	RFI-36-46 11/02/06	RFI-36-46 04/23/07
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	42	48	28	NA	30 Y	310 D	190 D	220 D	13 [13]	33	59	72	44	18	8	3
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	30 U	30 U	NA	300 UY	1 U	1 U	1 U [1 U]	30 U [30 U]	1 U	1 U	1 U	30 U	30 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	37	33	29	NA	300 Y	750 D	440 D	1,100 D	121 [135]	55	110 D	49	16 J	21	10	3
1,1-Dichloroethene	ug/L	2.4	0.8 J	1	NA	10 UY	23	21	73 [74]	13 [13]	12	21	13	5 J	4	1	0.3 J
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	2 U	2 U	NA	20 UY	5 U	5 U	5 U [5 U]	2 U [2 U]	5 U	5 U	5 U	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	NA	10 UY	3.7	1.9	5.3 [5.6]	1 U [1 U]	0.76 J	1.1	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	30 U	30 U	NA	200 UY	25 U	25 U	25 U [25 U]	30 U [30 U]	25 U	25 U	25 U	30 U	30 U	20 U	20 U
2-Hexanone	ug/L	50 U	50 U	50 U	NA	500 UY	50 U	50 U	50 U [50 U]	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	1 U	1 U	NA	100 UY	50 U	50 U	50 U [50 U]	1 U [1 U]	50 U	50 U	50 U	1 U	1 U	10 U	10 U
Acetone	ug/L	25 U	30 UJ	30 U	NA	200 UY	25 U	25 U	25 U [25 U]	30 U [30 U]	25 U	25 U	25 U	30 U	30 U	20 U	20 UJ
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 UJ	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Bromomethane	ug/L	1 UJ	2 UJ	2 U	NA	20 UY	1 U	1 U	1 U [1 U]	2 U [2 U]	1 U	1 U	1 U	2 UJ	2 U	2 U	2 U
Carbon Disulfide	ug/L	5 UJ	5 UJ	5 U	NA	50 UY	5 U	5 U	5 UJ [5 UJ]	5 U [5 U]	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	13	1 UJ	3	NA	20 Y	74	110 D	110 D	5 J [4 J]	1 U	1.8	1 U	1 UJ	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	0.5 J	1 U	0.2 J	1 U
Chloromethane	ug/L	1 UJ	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1.1	1 U	1 U	NA	10 UY	3	2.4	11 [11]	1 [1]	1 U	0.89 J	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Cyclohexane	ug/L	5 U	1 UJ	1 U	NA	10 UY	5 U	5 U	5 U [5 U]	1 U [1 U]	5 U	5 U	5 U	1 U	1 U	1 U	1 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	1 U	1 U	NA	10 UY	5 U	5 U	5 U [5 U]	1 U [1 U]	5 U	5 U	5 U	1 U	1 U	1 U	1 U
m&p-Xylene	ug/L	2 U	1 U	1 U	NA	20 UY	2 U	2 U	2 U [2 U]	1 U [1 U]	2 U	2 U	2 U	1 U	1 U	1 U	1 U
Methyl acetate	ug/L	5 U	10 U	10 U	NA	100 UY	5 U	5 U	5 U [5 U]	10 U [10 U]	5 U	5 U	5 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	NA	50 UY	4.3 J	3.6 J	5.2 [5.3]	5 U [5 U]	1 J	0.8 J	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	20 U	20 U	NA	200 UY	1 U	1 U	1 UJ [1 UJ]	20 U [20 U]	1 U	1 U	1 UJ	20 U	20 U	20 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	NA	50 UY	2.1 J	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	50 UY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	10 UY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-44 03/25/03	RFI-36-44 10/07/04	RFI-36-44 06/08/05	RFI-36-44 11/09/12	RFI-36-44 06/07/13	RFI-36-45 02/20/02	RFI-36-45 06/20/02	RFI-36-45 03/25/03	RFI-36-45 06/10/05	RFI-36-46 02/25/02	RFI-36-46 06/17/02	RFI-36-46 03/25/03	RFI-36-46 10/11/04	RFI-36-46 06/09/05	RFI-36-46 11/02/06	RFI-36-46 04/23/07
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	3.9	2	1	NA	10 UY	1 U	0.57 J	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	NA	10 UY	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	2.1	1 U	1 U	NA	20 Y	74	65	110 D	1 U [1 U]	1.2	0.59 J	1 U	1 U	1 U	0.3 J	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	0.47 J	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.48 J	1 U	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	320	300 J	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J	0.24	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	0.82	NA	NA	NA	0.28 J	1.4	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3	4	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.4	3.5	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	3 U	NA	NA	NA	NA	NA	NA	0.14 J	0.4 U	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	510	NA	NA	NA	1,600 J	1,200	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	15	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.94 J	1.6 U	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.72	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	0.8 U	0.8 U	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	17 U	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	5.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-46 06/26/07	RFI-36-46 06/05/13	RFI-36-46 09/16/13	RFI-36-47 12/13/02	RFI-36-47 03/25/03	RFI-36-47 06/10/05	RFI-36-47 12/09/05	RFI-36-47 04/23/07	RFI-36-47 06/26/07	RFI-36-47 10/30/07	RFI-36-47 03/20/08	RFI-36-47 06/19/08	RFI-36-47 09/18/08	RFI-36-47 12/04/08	RFI-36-47 10/15/10	RFI-36-47R 06/07/13
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,1,1-Trichloroethane	ug/L	9	NA	NA	1 U	1 U	1 U	190	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	118	1 U	122	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 UJ	NA	NA	3 U	1 U	30 U	300 U	30 U	30 UJ	30 U [30 U]	30 U	30 U [30 U]	30 U	30 U	NA	30 U
1,1,2-Trichloroethane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	0.3 J	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	7	NA	NA	8.5	4	6	560	3	14	19 [17]	10	12 [11]	112	12	87	1 U
1,1-Dichloroethene	ug/L	1	NA	NA	1 U	1 U	1 U	70	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	31	1 U	26	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2,4-Trichlorobenzene	ug/L	2 U	NA	NA	5 U	5 U	2 U	20 U	2 U	2 U	2 U [2 U]	2 U	2 U [2 U]	2 U	2 U	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2-Dibromo-3-chloropropane	ug/L	1 UJ	NA	NA	1 U	1 U	1 U	10 U	1 U	1 UJ	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	5 U	1 U
1,2-Dibromoethane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,3-Dichlorobenzene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	NA	NA	25 U	25 U	30 U	300 U	20 U	20 U	20 U [20 U]	20 U	20 U [20 U]	20 U	20 UJ	30 U	20 U
2-Hexanone	ug/L	50 U	NA	NA	50 U	50 U	50 U	500 U	50 U	50 U	50 U [50 U]	50 U	50 U [50 U]	50 UJ	50 UJ	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Methyl-2-pentanone	ug/L	10 U	NA	NA	50 U	50 U	1 U	10 UJ	10 U	10 U	10 U [10 U]	10 U	10 U [10 U]	10 U	10 U	50 U	10 U
Acetone	ug/L	R	NA	NA	1.3 J	25 U	30 U	300 U	20 UJ	R	20 U [20 U]	20 U	20 U [20 U]	20 U	20 UJ	50 U	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Benzene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	0.3 J	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Bromodichloromethane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U	NA	NA	1 UJ	1 U	2 U	20 U	2 U	2 U	2 U [2 U]	2 UJ	2 UJ [2 UJ]	2 UJ	2 U	5 U	2 U
Carbon Disulfide	ug/L	5 U	NA	NA	5 U	5 U	5 U	50 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	NA	NA	1 U	1 UJ	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 UJ	NA	NA	1 U	1 U	1 U	120	1 U	1 UJ	1 U [1 U]	1 UJ	1 UJ [1 UJ]	26 J	1 U	10	1 U
Chloroform	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 UJ	NA	NA	1 UJ	1 U	1 U	10 U	1 U	1 UJ	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	5 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	5	1 U	4	1 U
cis-1,3-Dichloropropene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 UJ	NA	NA	3 U	5 U	1 U	10 U	1 UJ	1 UJ	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	NA	1 U
Dibromochloromethane	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	5 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Dichlorodifluoromethane	ug/L	R	NA	NA	1 U	1 U	1 U	10 U	1 U	R	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	5 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Ethylbenzene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Isopropylbenzene	ug/L	1 U	NA	NA	5 U	5 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	5 U	1 U
m&p-Xylene	ug/L	1 U	NA	NA	2 U	2 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	2 U	2 U
Methyl acetate	ug/L	10 U	NA	NA	3 U	5 U	10 U	100 U	10 U	10 U	10 U [10 U]	10 U	10 U [10 U]	10 U	10 U	NA	10 U
Methyl tert-butyl ether	ug/L	5 U	NA	NA	5 U	5 U	5 U	50 U	5 U	0.2 J	5 U [5 U]	5 U	5 U [5 U]	0.4 J	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	NA	NA	3 U	1 UJ	20 U	200 U	20 U	20 U	20 U [20 U]	20 U	20 U [20 U]	20 U	20 U	NA	20 U
Methylene Chloride	ug/L	5 U	NA	NA	5 U	5 U	5 U	50 U	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U
o-Xylene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Styrene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-46 06/26/07	RFI-36-46 06/05/13	RFI-36-46 09/16/13	RFI-36-47 12/13/02	RFI-36-47 03/25/03	RFI-36-47 06/10/05	RFI-36-47 12/09/05	RFI-36-47 04/23/07	RFI-36-47 06/26/07	RFI-36-47 10/30/07	RFI-36-47 03/20/08	RFI-36-47 06/19/08	RFI-36-47 09/18/08	RFI-36-47 12/04/08	RFI-36-47 10/15/10	RFI-36-47R 06/07/13
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Tetrachloroethene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA
Toluene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	0.2 J	1 U	1 U [1 U]	1 U	0.1 J [1 U]	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	0.4 J	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Trichloroethene	ug/L	1 U	NA	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 UJ	NA	NA	1 U	1 U	1 U	10 U	1 U	1 UJ	1 U [1 U]	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 UJ	NA	NA	1 U	1 U	1 U	20	1 U	1 UJ	1 U [1 U]	1 U	1 U [1 U]	3	1 U	2	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-46 06/26/07	RFI-36-46 06/05/13	RFI-36-46 09/16/13	RFI-36-47 12/13/02	RFI-36-47 03/25/03	RFI-36-47 06/10/05	RFI-36-47 12/09/05	RFI-36-47 04/23/07	RFI-36-47 06/26/07	RFI-36-47 10/30/07	RFI-36-47 03/20/08	RFI-36-47 06/19/08	RFI-36-47 09/18/08	RFI-36-47 12/04/08	RFI-36-47 10/15/10	RFI-36-47R 06/07/13
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	170	1,170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,290
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-46 06/26/07	RFI-36-46 06/05/13	RFI-36-46 09/16/13	RFI-36-47 12/13/02	RFI-36-47 03/25/03	RFI-36-47 06/10/05	RFI-36-47 12/09/05	RFI-36-47 04/23/07	RFI-36-47 06/26/07	RFI-36-47 10/30/07	RFI-36-47 03/20/08	RFI-36-47 06/19/08	RFI-36-47 09/18/08	RFI-36-47 12/04/08	RFI-36-47 10/15/10	RFI-36-47R 06/07/13
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.034	0.792	1.989	0.884	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	2.6 -	33.4 -	125 -	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.46	6.81	6.84	6.5	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40	65	60	25	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.87	12.33	14.27	9.63	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.67	11.3	1.09	1.32	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,040	750	1,980	670	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-47R 09/16/13	RFI-36-48 12/13/02	RFI-36-48 02/28/05	RFI-36-48 06/10/05	RFI-36-48 12/09/05	RFI-36-48 09/30/07	RFI-36-48 03/20/08	RFI-36-48 06/19/08	RFI-36-48 09/17/08	RFI-36-48 12/04/08	RFI-36-48 10/15/10	RFI-36-48 10/26/11	RFI-36-48 11/09/12	RFI-36-51 04/28/03	RFI-36-51 06/10/05	RFI-36-53 04/04/05
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	0.2 J	0.6 J	0.9 J	3	7	2	9	300 D	116	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	3 U	30 U [30 U]	30 U	30 U [30 U]	30 U [30 U]	30 U	30 U	30 U	30 U	NA	30 U	30 U	1 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.7	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	3 [2]	2	170 [183]	25 [24]	17	27	27	16	49	15	33	290 D	50	3
1,1-Dichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	5 [5]	0.6 J [0.6 J]	0.9 J	2	2	4	6	3	7	90 D	14	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	5 U	2 U [2 U]	2 U	2 U [2 U]	2 U [2 U]	2 U	2 U	2 U	2 U	5 U	2 U	2 U	5 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 UJ
1,2-Dibromoethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.6	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	0.77 J	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	25 U	30 U [30 U]	30 U	30 U [30 U]	20 UJ [20 UJ]	20 U	20 U	20 U	20 UJ	30 U	20 U	20 U	25 U	30 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 UJ [50 UJ]	50 U	50 U [50 U]	50 U [50 U]	50 U	50 U	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	50 U	1 U [1 U]	1 U	1 U [1 U]	10 UJ [10 UJ]	10 U	10 U	10 U	10 U	50 U	10 U	10 U	50 U	1 U	1 U
Acetone	ug/L	20 U	1.7 J	30 U [30 U]	30 U	30 U [30 U]	20 UJ [20 UJ]	20 U	20 U	20 U	20 UJ	50 U	20 U	20 U	1.1 J	30 U	6 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.4	0.8 J	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Bromomethane	ug/L	2 U	1 UJ	R [R]	2 U	2 U [2 U]	2 U [2 U]	2 UJ	2 UJ	2 UJ	2 U	5 U	2 U	2 U	1 U	2 U	R
Carbon Disulfide	ug/L	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Carbon Tetrachloride	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	2 [1]	1 U	5 [6]	1 U [1 U]	1 UJ	1 UJ	1 UJ	1 U	5 U	1 U	2	34	1 U	9 J
Chloroform	ug/L	1 U	1 U	1 UJ [1 UJ]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 UJ	1 U [1 U]	1 U	1 U [1 U]	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	0.2 J	0.2 J	0.4 J	1 U	1 U	1 U	4	0.3 J	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	3 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	NA	1 U	1 U	5 U	1 U	1 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 UJ
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	5 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	5 U	1 U	1 U	5 U	1 U	3 J
m&p-Xylene	ug/L	2 U	2 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	1 U	9
Methyl acetate	ug/L	10 U	3 U	10 U [10 U]	10 U	10 U [10 U]	10 UJ [10 UJ]	10 U	10 U	10 U	10 U	NA	10 U	10 U	5 U	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	0.2 J [0.3 J]	5 U	4 J [4 J]	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.1 J	5 U	1 J
Methylcyclohexane	ug/L	20 U	3 U	20 U [20 U]	20 U	20 U [20 U]	20 UJ [20 UJ]	20 U	20 U	20 U	20 U	NA	20 U	20 U	1 U	20 U	0.8 J
Methylene Chloride	ug/L	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	5 UJ [5 UJ]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-47R 09/16/13	RFI-36-48 12/13/02	RFI-36-48 02/28/05	RFI-36-48 06/10/05	RFI-36-48 12/09/05	RFI-36-48 09/30/07	RFI-36-48 03/20/08	RFI-36-48 06/19/08	RFI-36-48 09/17/08	RFI-36-48 12/04/08	RFI-36-48 10/15/10	RFI-36-48 10/26/11	RFI-36-48 11/09/12	RFI-36-51 04/28/03	RFI-36-51 06/10/05	RFI-36-53 04/04/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	0.86 J	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.55 J	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	0.3 J	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	5 [6]	4	64 [64]	3 [3]	3	2	3	1 U	3	1 U	1	10	1	13
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71 J	NA	NA
Arsenic	ug/L	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.79 J	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.28 J	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 J	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.48	NA	NA
Manganese	ug/L	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-47R 09/16/13	RFI-36-48 12/13/02	RFI-36-48 02/28/05	RFI-36-48 06/10/05	RFI-36-48 12/09/05	RFI-36-48 09/30/07	RFI-36-48 03/20/08	RFI-36-48 06/19/08	RFI-36-48 09/17/08	RFI-36-48 12/04/08	RFI-36-48 10/15/10	RFI-36-48 10/26/11	RFI-36-48 11/09/12	RFI-36-51 04/28/03	RFI-36-51 06/10/05	RFI-36-53 04/04/05
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	NA	NA
Silver	ug/L	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 J	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 J	NA	NA
Vanadium	ug/L	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	0.727	0.729	0.68	0.471	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	88.2	58.5	67.5	178.7	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	6.74	6.81	6.82	6.25	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	40	65	60	25	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	10.81	12.15	14.28	10.56	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	0.01	0.54	0.43	1.17	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	2,280	3,030	3,600	2,210	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-53 06/10/05	RFI-36-55 07/06/05	RFI-36-55 12/09/05	RFI-36-55 06/26/07	RFI-36-55 10/30/07	RFI-36-55 03/20/08	RFI-36-55 06/18/08	RFI-36-55 09/17/08	RFI-36-55 12/04/08	RFI-36-55R 10/27/11	RFI-36-55R 11/09/12	RFI-36-55R 06/07/13	RFI-36-56 07/21/05	RFI-36-56 12/09/05	RFI-36-56 06/26/07	RFI-36-56 10/30/07
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 UJ	30 U	30 U	30 U	30 U	30 U	30 U	200 UY	200 UYX	30 U	30 U	30 UJ	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1	1 U	1 U	2	2	13	33	45	61	121	231 Y	112 YX	4	5	4	4
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3	12 Y	6 YX	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 UY	10 UYX	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 UJ	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	100 UY	100 UYX	30 U	30 U	20 U	20 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	300 UY	300 UYX	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 UY	50 UYX	1 U	1 U	10 U	10 U
Acetone	ug/L	30 U	30 U	30 U	7 J	5 J	20 U	3 J	20 U	20 UJ	20 U	100 UY	100 UYX	30 U	30 U	R	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 UJ	2 UJ	2 UJ	2 U	2 U	10 UY	10 UYX	2 U	2 U	2 U	2 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 UY	30 UYX	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Chloroethane	ug/L	7 J	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	5 UY	9 YX	1 U	1 U	1 UJ	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 UJ	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 UJ	1 U	1 UJ	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	R	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	R	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	3	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	3	0.2 J	1 U	1	0.9 J	0.3 J	0.3 J	0.6 J	0.7 J	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
m&p-Xylene	ug/L	7	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	2 U	10 UY	10 UYX	1 U	1 U	1 U	1 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 UY	50 UYX	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	ug/L	0.9 J	5 U	1 J	0.2 J	0.4 J	0.3 J	5 U	0.3 J	0.4 J	5 U	30 UY	30 UYX	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 J	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	100 UY	100 UYX	20 U	20 U	20 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	30 UY	30 UYX	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	30 UY	30 UYX	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	5 UY	5 UYX	NA	NA	NA	NA
o-Xylene	ug/L	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-53 06/10/05	RFI-36-55 07/06/05	RFI-36-55 12/09/05	RFI-36-55 06/26/07	RFI-36-55 10/30/07	RFI-36-55 03/20/08	RFI-36-55 06/18/08	RFI-36-55 09/17/08	RFI-36-55 12/04/08	RFI-36-55R 10/27/11	RFI-36-55R 11/09/12	RFI-36-55R 06/07/13	RFI-36-56 07/21/05	RFI-36-56 12/09/05	RFI-36-56 06/26/07	RFI-36-56 10/30/07
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 J	1 U	1 U	0.2 J	5	6	5	0.5 J	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	0.3 J	0.8 J	0.5 J	0.5 J
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	5 UY	5 UYX	1 U	1 U	1 UJ	1 U
Vinyl Chloride	ug/L	13	1 U	1 U	1 UJ	0.9 J	0.6 J	1 U	0.2 J	1 J	9	8 Y	7 YX	1 U	1 U	1 UJ	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-53 06/10/05	RFI-36-55 07/06/05	RFI-36-55 12/09/05	RFI-36-55 06/26/07	RFI-36-55 10/30/07	RFI-36-55 03/20/08	RFI-36-55 06/18/08	RFI-36-55 09/17/08	RFI-36-55 12/04/08	RFI-36-55R 10/27/11	RFI-36-55R 11/09/12	RFI-36-55R 06/07/13	RFI-36-56 07/21/05	RFI-36-56 12/09/05	RFI-36-56 06/26/07	RFI-36-56 10/30/07
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-53 06/10/05	RFI-36-55 07/06/05	RFI-36-55 12/09/05	RFI-36-55 06/26/07	RFI-36-55 10/30/07	RFI-36-55 03/20/08	RFI-36-55 06/18/08	RFI-36-55 09/17/08	RFI-36-55 12/04/08	RFI-36-55R 10/27/11	RFI-36-55R 11/09/12	RFI-36-55R 06/07/13	RFI-36-56 07/21/05	RFI-36-56 12/09/05	RFI-36-56 06/26/07	RFI-36-56 10/30/07
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	0.621	0.551	0.469	0.672	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	21.1	1.7 -	29.6	60.1 -	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	7	6.74	6.82	6.3	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	40	65	60	25	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	5.89	10.1	15.45	10.27	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	0.02	1.17	3.54	4.58	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	2,570	2,910	1,830	490	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-56 03/20/08	RFI-36-56 06/18/08	RFI-36-56 09/17/08	RFI-36-56 12/04/08	RFI-36-56 10/24/11	RFI-36-56 11/09/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-05 09/28/01	RFI-38-06 09/28/01	RFI-38-06 02/21/02	RFI-38-06 06/13/02	RFI-38-06 03/25/03
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	0.2 J	0.4 J	3	3	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	30 U	30 U	1 U	NA	NA	NA	NA	1 U	1 U [1 U]	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,1-Dichloroethane	ug/L	0.3 J	3	8	7	9	5	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	5 U	NA	NA	5 U	NA	5 U	5 U [5 U]	NA	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	25 U	NA	NA	25 U	NA	25 U	25 U [25 U]	NA	NA	NA
2-Hexanone	ug/L	50 U	50 U	50 UJ	50 UJ	50 U	50 U	50 U	NA	NA	50 U	NA	50 U	50 U [50 U]	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	50 U	NA	NA	50 U	NA	50 U	50 U [50 U]	NA	NA	NA
Acetone	ug/L	20 U	20 U	20 U	20 UJ	20 U	20 U	25 U	NA	NA	50 U	NA	25 U	25 U [25 U]	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Bromomethane	ug/L	2 UJ	2 UJ	2 UJ	2 U	2 U	2 U	1 U	NA	NA	5 U	NA	1 U	1 U [1 U]	NA	NA	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	NA	5 U	5 U [5 U]	NA	NA	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Chloroethane	ug/L	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	NA	NA	5 U	NA	1 U	1 U [1 U]	NA	NA	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	NA	1 U	1 U [1 U]	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Cyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	NA	5 U	5 U [5 U]	NA	NA	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	NA	1 U	1 U [1 U]	NA	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	NA	1 U	1 U [1 U]	NA	NA	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	5 U	NA	5 U	5 U [5 U]	NA	NA	NA
m&p-Xylene	ug/L	1 U	1 U	1 U	1 U	2 U	2 U	2 U	NA	NA	2 U	NA	2 U	2 U [2 U]	NA	NA	NA
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	5 U	NA	NA	NA	NA	5 U	5 U [5 U]	NA	NA	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	NA	5 U	5 U [5 U]	NA	NA	NA
Methylcyclohexane	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	1 U	NA	NA	NA	NA	1 U	1 U [1 U]	NA	NA	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	5 U	NA	5 U	5 U [5 U]	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-56 03/20/08	RFI-36-56 06/18/08	RFI-36-56 09/17/08	RFI-36-56 12/04/08	RFI-36-56 10/24/11	RFI-36-56 11/09/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-05 09/28/01	RFI-38-06 09/28/01	RFI-38-06 02/21/02	RFI-38-06 06/13/02	RFI-38-06 03/25/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	0.1 J	0.1 J	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	0.2 J	0.7 J	0.4 J	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	2.7 [2.4]	NA	NA	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	NA	1 U	1 U [1 U]	NA	NA	NA
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	4.1 U	NA	NA	4 U	NA	4.2 U	4.2 U [4 U]	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	10 U	NA	11 U	11 U [10 U]	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	25 U	NA	21 U	21 U [20 U]	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	10 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	10 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	25 U	NA	21 U	21 U [20 U]	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	10 UJ	NA	NA	20 U	NA	11 UJ	11 UJ [10 UJ]	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	5 U	NA	21 U	21 U [20 U]	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	25 U	NA	21 U	21 U [20 U]	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	20 U	NA	21 U	21 U [20 U]	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	10 U	NA	21 U	21 U [20 U]	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	25 U	NA	21 UJ	21 UJ [20 UJ]	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	25 U	NA	21 U	21 U [20 U]	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA	5.3 U	5.3 UJ [5 U]	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA	5.3 U	5.3 UJ [5 U]	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	1 U	NA	NA	1 U	NA	1.1 U	1.1 U [1 U]	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	1 U	NA	2.1 U	2.1 U [2 U]	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	1 U	NA	2.1 U	2.1 U [2 U]	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	1 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	1 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	1 U	NA	NA	5 U	NA	1.1 U	1.1 U [1 U]	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	11 U	11 U [10 U]	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	11 UJ	11 UJ [10 UJ]	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	1 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.1 U	2.1 U [2 U]	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	4.1 U	NA	NA	4 U	NA	4.2 U	4.2 U [4 U]	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	1.23 J	1.6 J [5 U]	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-56 03/20/08	RFI-36-56 06/18/08	RFI-36-56 09/17/08	RFI-36-56 12/04/08	RFI-36-56 10/24/11	RFI-36-56 11/09/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-05 09/28/01	RFI-38-06 09/28/01	RFI-38-06 02/21/02	RFI-38-06 06/13/02	RFI-38-06 03/25/03
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	1 U	NA	2.1 U	2.1 U [2 U]	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1 U	NA	NA	5 U	NA	1.1 U	1.1 U [1 U]	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	10 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	2 U	NA	2.1 U	2.1 U [2 U]	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	5 U	NA	2.1 U	2.1 U [2 U]	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	NA	5 U	NA	21 U	21 U [20 U]	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	2 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	5 U	NA	5.3 U	5.3 U [5 U]	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.11 U	0.11 U [0.11 U]	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.11 U [0.1 U]	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	1.2 U	NA	NA	1.2 U	1.2 U [1.2 U]	NA	1.2 U	0.36 J
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	1.4 J	0.98 J	1 U	2 U	NA	2.2 J	7.2 J [9.8 J]	NA	2.7	1.5
Barium	ug/L	NA	NA	NA	NA	NA	NA	200 J	97 J	39 J	66	NA	160 J	150 J [140]	NA	83 J	98 J
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	1.1 J	0.4 UJ	0.4 U	1 U	NA	1.5 J	1.5 J [34]	NA	0.4 UJ	0.4 U
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	0.14 J	0.063 J	0.2 U	0.5 U	NA	0.52 J	0.18 J [1.5 J]	NA	0.083 J	0.098 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	1.4	1.1	1.7	5 U	NA	1.6	0.89 [3.2]	NA	0.22 J	0.38 J
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	2.7	1.6	0.42	5 U	NA	2.3	7.5 [8.3]	NA	4.2	4.2
Copper	ug/L	NA	NA	NA	NA	NA	NA	2.3	5.8	2.1	NA	NA	7.5	2 [8.3]	NA	3.1	2.8
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	2.9 J	NA	5 U	5 U	5 U [5 U]	5 U	5 U [5 U]	NA	NA	5 U
Lead	ug/L	NA	NA	NA	NA	NA	NA	0.44	1 J	0.4 U	NA	NA	0.51	0.48 [0.7 J]	NA	0.093 J	0.22 J
Manganese	ug/L	NA	NA	NA	NA	NA	NA	880 J	490	240	19	NA	550 J	550 J [1,000]	NA	410	340
Mercury	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-36-56 03/20/08	RFI-36-56 06/18/08	RFI-36-56 09/17/08	RFI-36-56 12/04/08	RFI-36-56 10/24/11	RFI-36-56 11/09/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-05 09/28/01	RFI-38-06 09/28/01	RFI-38-06 02/21/02	RFI-38-06 06/13/02	RFI-38-06 03/25/03
Nickel	ug/L	NA	NA	NA	NA	NA	NA	21	12	3.9	5 U	NA	17	25 [30]	NA	13	15
Selenium	ug/L	NA	NA	NA	NA	NA	NA	1.4 U	1.4 U	1.6 U	5 U	NA	1.6 J	1.4 U [2.3 J]	NA	1.4 U	1.6 U
Silver	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 UJ	0.4 U	0.2 U	NA	0.4 U	0.21 J [1.2 J]	NA	0.4 UJ	0.4 U
Thallium	ug/L	NA	NA	NA	NA	NA	NA	0.24 J	0.045 J	0.068 J	2 U	NA	0.46 J	3.8 J [4.9]	NA	2.2	2.6
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	0.8 U	0.75 J	0.8 U	NA	NA	0.8 U	0.8 U [5.4 J]	NA	0.8 U	0.8 U
Zinc	ug/L	NA	NA	NA	NA	NA	NA	12 J	14 J	6.8 U	5 U	NA	110 J	11 J [23]	NA	7.9 J	13 U
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA	1.2 U	1.2 U [1.2 U]	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1 U	3.3	NA	NA	NA	1 U	6.1 [6.2]	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	150	140	NA	NA	NA	130	140 [130]	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA	0.4 U	0.4 U [0.4 U]	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	0.6	0.2 U [0.2 U]	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.75 J	4.9	NA	NA	NA	0.74	0.6 U [0.6 U]	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.9	3.1	NA	NA	NA	1.7	6.2 [6.4]	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.3	15 U	NA	NA	NA	5.4	0.77 [0.73]	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	2.9 J	NA	NA	NA	NA	5 U	5 U [5 U]	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	6.5	NA	NA	NA	0.4 U	0.4 U [0.4 U]	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	770 J	1,700 J	NA	NA	NA	520 J	550 J [520 J]	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	0.2 U [0.2 U]	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	15	17	NA	NA	NA	12	20 [21]	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.8 J	1.4 U	NA	NA	NA	1.4 U	2.1 [2.1 J]	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 UJ	NA	NA	NA	0.4 U	0.4 U [0.4 U]	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	0.2 U	3.1 [3]	3.4	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.8 U	4.5	NA	NA	NA	0.8 U	0.8 U [0.8 U]	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	6.3 J	37 J	NA	NA	NA	82 J	8.7 J [8.3 J]	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	0.377	0.603	0.764	0.403	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	120	131.5	88	52.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	7.39	7.24	6.96	6.73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	40	55	60	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	6.85	11	17.46	9.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	3.72	4.37	3	0.71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	3,410	900	870	2,170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-38-06 10/13/04	RFI-38-06 10/10/12	RFI-40-03 02/25/02	RFI-40-03 06/24/02	RFI-40-03 03/27/03	RFI-40-03 06/06/13	RFI-40-03 09/26/13	RFI-40-04 02/25/02	RFI-40-04 12/18/02	RFI-40-07 02/25/02	RFI-40-07 06/24/02	RFI-40-09 02/26/02	RFI-40-09 06/24/02	RFI-40-09 03/26/03	RFI-40-09 06/06/13	RFI-40-10 02/21/02
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1 U	1 U	1 U	200 UX	30 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	6,000 UY	1 U
1,1,2-Trichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,1-Dichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1.1	1.3	1.1	200 UY	1 U
1,1-Dichloroethene	ug/L	NA	1 U [1 U]	1 U	0.64 J	1.3	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,2,3-Trichlorobenzene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	5 U [5 U]	5 U	5 U	5 U	10 UX	2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	400 UY	5 U
1,2,4-Trimethylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	5 U [5 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	200 UY	1 U
1,2-Dibromoethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,2-Dichlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,2-Dichloroethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,2-Dichloropropane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,3,5-Trimethylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,4-Dichlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	25 U [25 U]	25 U	25 UJ	25 U	100 UX	20 U	25 U	25 U	25 U	1.2 J	25 U	1.7 J	25 U	4,000 UY	25 U
2-Hexanone	ug/L	NA	50 U [50 U]	50 U	50 U	50 U	300 UX	50 U	50 U	50 U	50 U	50 U	0.79 J	50 U	50 U	10,000 UY	50 U
2-Methylnaphthalene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	50 U [50 U]	50 U	50 U	50 U	50 UX	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	2,000 UY	50 U
Acetone	ug/L	NA	50 U [50 U]	25 U	2.5 J	25 U	100 UX	20 U	25 U	25 U	25 U	25 U	25 U	9.1 J	25 U	4,000 UY	25 U
Acrylonitrile	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	680 D	730 D	850 D	9,200 Y	1 U
Bromobenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Bromoform	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Bromomethane	ug/L	NA	5 U [5 U]	1 U	1 U	1 U	10 UX	2 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	400 UY	1 U
Carbon Disulfide	ug/L	NA	5 U [5 U]	5 U	5 U	5 U	30 UX	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1,000 UY	5 U
Carbon Tetrachloride	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Chlorobenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Chloroethane	ug/L	NA	5 U [5 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Chloroform	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Chloromethane	ug/L	NA	5 U [5 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
cis-1,2-Dichloroethene	ug/L	NA	1 U [1 U]	4.8	6.2	10	6 X	13	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	200 UY	4.4
cis-1,3-Dichloropropene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Cyclohexane	ug/L	NA	NA	5 U	5 U	5 U	5 UX	1 U	5 U	5 U	5 U	5 U	140 D	170 D	79 D	200 Y	5 U
Dibromochloromethane	ug/L	NA	5 U [5 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Dibromomethane	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	5 U [5 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Diethyl ether	ug/L	NA	10 U [10 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	38	36	6.6	200 UY	1 U
Hexachloroethane	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	5 U [5 U]	5 U	5 U	5 U	5 UX	1 U	5 U	5 U	5 U	5 U	14	14	6.8	200 UY	5 U
m&p-Xylene	ug/L	NA	2 U [2 U]	2 U	2 U	2 U	10 UX	2 U	0.55 J	2 U	2 U	2 U	8.3	7	5.5	400 UY	2 U
Methyl acetate	ug/L	NA	NA	5 U	5 U	5 UJ	50 UX	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2,000 UY	5 U
Methyl tert-butyl ether	ug/L	NA	5 U [5 U]	5 U	5 U	5 U	30 UX	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1,000 UY	5 U
Methylcyclohexane	ug/L	NA	NA	1 U	1 U	1 U	100 UX	20 U	1 U	1 U	1 U	1 U	85 D	88 D	29	4,000 UY	1 U
Methylene Chloride	ug/L	NA	5 U [5 U]	5 U	5 U	5 U	30 UX	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1,000 UY	5 U
Naphthalene	ug/L	NA	5 U [5 U]	NA	NA	NA	30 UX	1 U	NA	NA	NA	NA	NA	NA	NA	1,000 UY	NA
n-Butylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	5 UX	1 U	NA	NA	NA	NA	NA	NA	NA	200 UY	NA
o-Xylene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	3.2	2.1	1.2	200 UY	1 U
p-Isopropyltoluene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-38-06 10/13/04	RFI-38-06 10/10/12	RFI-40-03 02/25/02	RFI-40-03 06/24/02	RFI-40-03 03/27/03	RFI-40-03 06/06/13	RFI-40-03 09/26/13	RFI-40-04 02/25/02	RFI-40-04 12/18/02	RFI-40-07 02/25/02	RFI-40-07 06/24/02	RFI-40-09 02/26/02	RFI-40-09 06/24/02	RFI-40-09 03/26/03	RFI-40-09 06/06/13	RFI-40-10 02/21/02
tert-Butylbenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	0.69 J
Tetrahydrofuran	ug/L	NA	90 U [90 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	13	11	14	200 UY	1 U
trans-1,2-Dichloroethene	ug/L	NA	1 U [1 U]	1 U	0.61 J	1	5 UX	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
trans-1,3-Dichloropropene	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	7 [8]	52	73	120 D	5 UX	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	18
Trichlorofluoromethane	ug/L	NA	1 U [1 U]	1 U	1 U	1 U	5 UX	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
Vinyl Chloride	ug/L	NA	1 U [1 U]	1 U	1 U	3	5 UX	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	200 UY	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
1,2,4-Trichlorobenzene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2,4,5-Trichlorophenol	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2,4,6-Trichlorophenol	ug/L	NA	4 U [4 U]	4 U	NA	NA	NA	NA	NA	NA	4 U	NA	4 U	NA	NA	NA	4 U
2,4-Dichlorophenol	ug/L	NA	10 U [10 U]	10 U	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	NA	10 U
2,4-Dimethylphenol	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2,4-Dinitrophenol	ug/L	NA	25 U [25 U]	20 U	NA	NA	NA	NA	NA	NA	20 UJ	NA	20 UJ	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2,6-Dinitrotoluene	ug/L	NA	5 U [5 U]	1.39 J	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2-Chlorophenol	ug/L	NA	10 U [10 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2-Methylnaphthalene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	6	NA	NA	NA	5 U
2-Methylphenol	ug/L	NA	10 U [10 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
2-Nitroaniline	ug/L	NA	25 U [25 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
3&4-Methylphenol	ug/L	NA	20 U [20 U]	10 UJ	NA	NA	NA	NA	NA	NA	10 UJ	NA	10 UJ	NA	NA	NA	10 UJ
3,3'-Dichlorobenzidine	ug/L	NA	5 U [5 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	25 U [25 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U [20 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
4-Bromophenyl-phenylether	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
4-Chloro-3-Methylphenol	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
4-Chloroaniline	ug/L	NA	10 U [10 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
4-Chlorophenyl-phenylether	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
4-Nitroaniline	ug/L	NA	25 U [25 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	25 U [25 U]	20 U	NA	NA	NA	NA	NA	NA	20 UJ	NA	20 UJ	NA	NA	NA	20 U
Acenaphthene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Acenaphthylene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Acetophenone	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Anthracene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Atrazine	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Benzaldehyde	ug/L	NA	NA	5 UJ	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 UJ
Benzo(a)anthracene	ug/L	NA	1 U [1 U]	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	1 U
Benzo(a)pyrene	ug/L	NA	1 U [1 U]	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	2 U
Benzo(b)fluoranthene	ug/L	NA	1 U [1 U]	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	2 U
Benzo(g,h,i)perylene	ug/L	NA	1 U [1 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Benzo(k)fluoranthene	ug/L	NA	1 U [1 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
bis(2-Chloroethoxy)methane	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
bis(2-Chloroethyl)ether	ug/L	NA	5 U [5 U]	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	1 J	NA	5 U	NA	NA	NA	5 U
Butylbenzylphthalate	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Caprolactam	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	NA	10 U
Carbazole	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	NA	10 U
Chrysene	ug/L	NA	1 U [1 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Dibenzo(a,h)anthracene	ug/L	NA	2 U [2 U]	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	2 U
Dibenzofuran	ug/L	NA	4 U [4 U]	4 U	NA	NA	NA	NA	NA	NA	4 U	NA	4 U	NA	NA	NA	4 U
Diethylphthalate	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	1.51 J	NA	NA	NA	5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-38-06 10/13/04	RFI-38-06 10/10/12	RFI-40-03 02/25/02	RFI-40-03 06/24/02	RFI-40-03 03/27/03	RFI-40-03 06/06/13	RFI-40-03 09/26/13	RFI-40-04 02/25/02	RFI-40-04 12/18/02	RFI-40-07 02/25/02	RFI-40-07 06/24/02	RFI-40-09 02/26/02	RFI-40-09 06/24/02	RFI-40-09 03/26/03	RFI-40-09 06/06/13	RFI-40-10 02/21/02
Dimethylphthalate	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Di-n-Butylphthalate	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Di-n-Octylphthalate	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Fluoranthene	ug/L	NA	1 U [1 U]	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	2 U
Fluorene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	NA	5 U [5 U]	1 U	NA	NA	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	NA	1 U
Hexachlorobutadiene	ug/L	NA	10 U [10 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Hexachlorocyclopentadiene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Hexachloroethane	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U [2 U]	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	2 U
Isophorone	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Methylphenols, Total	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Naphthalene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	6.26	NA	NA	NA	5 U
Nitrobenzene	ug/L	NA	5 U [5 U]	2 U	NA	NA	NA	NA	NA	NA	2 U	NA	2 U	NA	NA	NA	2 U
N-Nitroso-di-n-propylamine	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Pentachlorophenol	ug/L	NA	5 U [5 U]	20 U	NA	NA	NA	NA	NA	NA	20 U	NA	20 U	NA	NA	NA	20 U
Phenanthrene	ug/L	NA	2 U [2 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
Phenol	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	16.3	NA	NA	NA	5 U
Pyrene	ug/L	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	5 U	NA	5 U	NA	NA	NA	5 U
PCB																	
Aroclor-1016	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1221	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1232	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1242	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1248	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1254	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1260	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U [0.1 U]	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Total PCBs (Dissolved)	ug/L	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	NA	0.1 U
Inorganic																	
Antimony	ug/L	NA	NA	NA	1.1 J	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA
Arsenic	ug/L	NA	2 U [2 U]	NA	0.99 J	NA	NA	NA	NA	NA	NA	NA	NA	43	NA	212	NA
Barium	ug/L	NA	70 [71]	NA	96	NA	NA	NA	NA	NA	NA	NA	NA	330	NA	NA	NA
Beryllium	ug/L	1 U	1 U [1 U]	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	1 U	NA
Cadmium	ug/L	NA	0.5 U [0.5 U]	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	0.096 J	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	5 U [5 U]	NA	0.5 J	NA	NA	NA	NA	NA	NA	NA	NA	0.26 J	NA	NA	NA
Cobalt	ug/L	NA	5 U [5 U]	NA	2.2	NA	NA	NA	NA	NA	NA	NA	NA	1.7	NA	NA	NA
Copper	ug/L	NA	NA	NA	5.6	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA	NA	NA
Cyanide (total)	ug/L	NA	5 U [5 U]	5 U	5 U	NA	NA	NA	NA	NA	3.1 J	NA	1.4 J	5 U	NA	10	5 U
Lead	ug/L	NA	NA	NA	0.65	NA	NA	NA	NA	NA	NA	NA	NA	0.31 J	NA	NA	NA
Manganese	ug/L	NA	866 [886]	NA	1,000 J	NA	NA	NA	NA	NA	NA	NA	NA	120 J	NA	NA	NA
Mercury	ug/L	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-38-06 10/13/04	RFI-38-06 10/10/12	RFI-40-03 02/25/02	RFI-40-03 06/24/02	RFI-40-03 03/27/03	RFI-40-03 06/06/13	RFI-40-03 09/26/13	RFI-40-04 02/25/02	RFI-40-04 12/18/02	RFI-40-07 02/25/02	RFI-40-07 06/24/02	RFI-40-09 02/26/02	RFI-40-09 06/24/02	RFI-40-09 03/26/03	RFI-40-09 06/06/13	RFI-40-10 02/21/02
Nickel	ug/L	NA	11 [9]	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	4	NA	NA	NA
Selenium	ug/L	NA	5 U [5 U]	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	1.4 U	NA	NA	NA
Silver	ug/L	NA	0.2 U [0.2 U]	NA	0.44 UJ	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	0.5 U	NA
Thallium	ug/L	3	2 U [2 U]	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	NA	NA	NA	0.25 J	NA	NA	NA
Zinc	ug/L	NA	6 [11]	NA	25	NA	NA	NA	NA	NA	NA	NA	NA	8.9	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	1.2 UJ	NA	NA	NA	NA	NA	NA	1.2 U	NA	1.2 UJ	1.2 U	NA	NA	1.4 U
Arsenic (Dissolved)	ug/L	NA	NA	2.2 J	NA	NA	NA	NA	NA	NA	2.4	NA	49 J	41	NA	NA	2.6 U
Barium (Dissolved)	ug/L	NA	NA	50 J	NA	NA	NA	NA	NA	NA	84	NA	290 J	290	NA	NA	35
Beryllium (Dissolved)	ug/L	NA	NA	5.2 J	NA	NA	NA	NA	NA	NA	2.1 J	NA	19 J	0.4 U	NA	NA	2 J
Cadmium (Dissolved)	ug/L	NA	NA	2.9 J	NA	NA	NA	NA	NA	NA	0.28 J	NA	1.5 J	0.2 U	NA	NA	0.2 U
Chromium Total (Dissolved)	ug/L	NA	NA	7.3 J	NA	NA	NA	NA	NA	NA	7.5	NA	9.7 J	0.6 U	NA	NA	5.1
Cobalt (Dissolved)	ug/L	NA	NA	1.9 J	NA	NA	NA	NA	NA	NA	1.4	NA	2.3 J	1.4	NA	NA	0.3
Copper (Dissolved)	ug/L	NA	NA	12 J	NA	NA	NA	NA	NA	NA	6.4	NA	14 J	4	NA	NA	1.5
Cyanide (dissolved)	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	3.3 J	NA	5 U	5 U	NA	NA	2.1 J
Lead (Dissolved)	ug/L	NA	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	3	NA	0.49 J	0.4 U	NA	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	NA	320 J	NA	NA	NA	NA	NA	NA	370	NA	100 J	100 J	NA	NA	12
Mercury (Dissolved)	ug/L	NA	NA	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	11 J	NA	NA	NA	NA	NA	NA	9.6	NA	9.3 J	3.5	NA	NA	2.9
Selenium (Dissolved)	ug/L	NA	NA	1.4 U	NA	NA	NA	NA	NA	NA	5.4 J	NA	1.4 U	1.4 U	NA	NA	2 U
Silver (Dissolved)	ug/L	NA	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	1.1 J	0.84 J	NA	NA	0.4 UJ
Thallium (Dissolved)	ug/L	NA	NA	0.5 J	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.84 J	0.2 U	NA	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	NA	1.6 J	NA	NA	NA	NA	NA	NA	0.98 J	NA	0.8 UJ	0.8 U	NA	NA	1.7
Zinc (Dissolved)	ug/L	NA	NA	46 J	NA	NA	NA	NA	NA	NA	20	NA	24 J	15	NA	NA	6 U
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-40-10 06/24/02	RFI-40-10R 04/24/03	RFI-40-11 04/03/03	RFI-40-13 09/16/03	RFI-40-13 10/13/03	RFI-40-14R 04/22/03	RFI-40-15 04/22/03	RFI-44-04 09/18/01	RFI-44-04 12/20/02	RFI-44-04 04/03/03	RFI-44-05 09/14/01	RFI-44-05 12/20/02	RFI-44-05 03/24/03	RFI-44-05 10/05/04	RFI-44-05 10/26/10
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	30 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,1-Dichloroethane	ug/L	1 U	0.67 J	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	5 U [5 U]	5 UJ	5 U	NA	NA	5 U	NA	NA	2 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 UJ	25 U	25 U	25 U [25 U]	NA	25 U [25 U]	3.7 J	25 U	NA	NA	25 U	NA	NA	30 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 U [50 U]	NA	50 U [50 U]	50 UJ	50 U	NA	NA	50 U	NA	NA	50 UJ	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U [50 U]	NA	50 U [50 U]	50 UJ	0.55 J	NA	NA	50 U	NA	NA	1 U	NA
Acetone	ug/L	25 U	1.4 J	25 U	25 U [25 U]	NA	25 U [25 U]	15 J	25 U	NA	NA	25 U	NA	NA	6 J	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	5,500 JD	1 U	NA	NA	1 U	NA	NA	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Bromoform	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 UJ	NA
Bromomethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	2 UJ	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	5 U [5 U]	5 UJ	5 U	NA	NA	5 U	NA	NA	5 U	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Chloroethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 UJ	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Chloromethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
cis-1,2-Dichloroethene	ug/L	5.5	93	1 U	1 U [1 U]	NA	2.5 [2.7]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Cyclohexane	ug/L	5 U	5 U	5 U	11 [12]	NA	5 U [5 U]	100 J	5 U	NA	NA	5 U	NA	NA	1 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	2.4 [2.3]	NA	1 U [1 U]	4.8 J	1 U	NA	NA	1 U	NA	NA	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	0.84 J [0.84 J]	NA	5 U [5 U]	1.6 J	5 U	NA	NA	5 U	NA	NA	1 U	NA
m&p-Xylene	ug/L	2 U	2 U	2 U	3 [3.1]	NA	2 U [2 U]	26 J	2 U	NA	NA	2 U	NA	NA	1 U	NA
Methyl acetate	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	5 U [5 U]	5 UJ	5 U	NA	NA	5 U	NA	NA	10 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	5 U [5 U]	0.5 J	5 U	NA	NA	5 U	NA	NA	5 U	NA
Methylcyclohexane	ug/L	1 U	1 U	1 U	9.4 [9.5]	NA	1 U [1 U]	11 J	1 U	NA	NA	1 U	NA	NA	20 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U [5 U]	NA	5 U [5 U]	5 UJ	5 U	NA	NA	5 U	NA	NA	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	0.43 J [0.43 J]	NA	1 U [1 U]	3.7 J	1 U	NA	NA	1 U	NA	NA	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-40-10 06/24/02	RFI-40-10R 04/24/03	RFI-40-11 04/03/03	RFI-40-13 09/16/03	RFI-40-13 10/13/03	RFI-40-14R 04/22/03	RFI-40-15 04/22/03	RFI-44-04 09/18/01	RFI-44-04 12/20/02	RFI-44-04 04/03/03	RFI-44-05 09/14/01	RFI-44-05 12/20/02	RFI-44-05 03/24/03	RFI-44-05 10/05/04	RFI-44-05 10/26/10
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	0.52 J	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	15 J	1 U	NA	NA	1 U	NA	NA	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	3.3	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	17	100	1 U	1 U [1 U]	NA	2.1 [2.4]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U [1 U]	NA	1 U [1 U]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
Vinyl Chloride	ug/L	1 U	7.8	1 U	1 U [1 U]	NA	1 U [0.59 J]	1 UJ	1 U	NA	NA	1 U	NA	NA	1 U	NA
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	4 U	NA	NA	4.4 U	NA	NA	4 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	10 U	NA	NA	11 U	NA	NA	10 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	10 UJ	NA	NA	11 UJ	NA	NA	10 UJ	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	5 U	NA	NA	R	NA	NA	R	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 UJ	NA	NA	5 U	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	1 U	NA	NA	1.1 U	NA	NA	1 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	2 U	NA	NA	2.2 U	NA	NA	2 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	2 U	NA	NA	2.2 U	NA	NA	2 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	1.5 U	NA	NA	1.1 U	NA	NA	1 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	10 U	NA	NA	11 U	NA	NA	10 U	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	10 U	NA	NA	11 U	NA	NA	10 U	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	2 U	NA	NA	2.2 U	NA	NA	2 U	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	4 U	NA	NA	4.4 U	NA	NA	4 U	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	5 U	NA	NA	1.49 J	NA	NA	5 U	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-40-10 06/24/02	RFI-40-10R 04/24/03	RFI-40-11 04/03/03	RFI-40-13 09/16/03	RFI-40-13 10/13/03	RFI-40-14R 04/22/03	RFI-40-15 04/22/03	RFI-44-04 09/18/01	RFI-44-04 12/20/02	RFI-44-04 04/03/03	RFI-44-05 09/14/01	RFI-44-05 12/20/02	RFI-44-05 03/24/03	RFI-44-05 10/05/04	RFI-44-05 10/26/10
Dimethylphthalate	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	2 U	NA	NA	2.2 U	NA	NA	2 U	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	1.1 U	NA	NA	1 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	2 U	NA	NA	2.2 U	NA	NA	2 U	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	2 U	NA	NA	2.2 U	NA	NA	2 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	20 U	NA	NA	22 U	NA	NA	20 U	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	5 U	NA	NA	5.6 U	NA	NA	5 U	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 UJ	0.1 U [0.1 U]	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.11 U [0.1 U]	NA	NA	NA	0.11 U	0.11 U [0.12 U]	0.1 U	0.1 U	0.12 U	0.1 U [0.1 U]	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.86	0.11 U	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.23	0.11 U	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	0.1 U	0.11 U	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U [0.11 U]	NA	1.09	0.11 U	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	1.4 J [1.4 J]	NA	0.53 J	0.42 J	NA	0.35 J	NA	NA	42 J	2.7	5 U	NA
Arsenic	ug/L	NA	NA	NA	8.7 J [8.6 J]	NA	1 U	11	NA	1.7 J	NA	NA	33 J	6.9	NA	NA
Barium	ug/L	NA	NA	NA	71 [70]	NA	91	670	NA	86	NA	NA	290	43 J	NA	NA
Beryllium	ug/L	NA	NA	NA	170 J [190 J]	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	0.4 U	NA	NA
Cadmium	ug/L	NA	NA	NA	2 J [1.9 J]	NA	0.064 J	0.064 J	NA	0.36 J	NA	NA	4.3 J	0.13 J	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	6.5 J [5.9 J]	NA	1.7	0.96	NA	0.71 J	NA	NA	380 J	2.7	5	NA
Cobalt	ug/L	NA	NA	NA	4 [3.8]	NA	0.7	2.8	NA	1.9 J	NA	NA	25 J	4.2	NA	NA
Copper	ug/L	NA	NA	NA	16 J [16 J]	NA	3.4	2	NA	37 J	NA	NA	220 J	9.9	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	5 U [5 U]	NA	5 U	3.1 J	1.1 J	5 U [5 U]	NA	NA	6.7 JDM	19	NA	5 U
Lead	ug/L	NA	NA	NA	1.1 [1.1]	NA	0.77	0.53	NA	3.6 J	NA	NA	75 J	1.6	3 U	NA
Manganese	ug/L	NA	NA	NA	200 [200]	NA	150	120	NA	99	NA	NA	410	140	NA	NA
Mercury	ug/L	NA	NA	NA	0.2 U [0.2 U]	NA	0.119 J	0.121 J	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-40-10 06/24/02	RFI-40-10R 04/24/03	RFI-40-11 04/03/03	RFI-40-13 09/16/03	RFI-40-13 10/13/03	RFI-40-14R 04/22/03	RFI-40-15 04/22/03	RFI-44-04 09/18/01	RFI-44-04 12/20/02	RFI-44-04 04/03/03	RFI-44-05 09/14/01	RFI-44-05 12/20/02	RFI-44-05 03/24/03	RFI-44-05 10/05/04	RFI-44-05 10/26/10
Nickel	ug/L	NA	NA	NA	19 J [18 J]	NA	5.5	8.6	NA	14 J	NA	NA	510 J	12	26	NA
Selenium	ug/L	NA	NA	NA	1.6 UJ [1.6 UJ]	NA	1.6 U	1.6 U	NA	1.6 U	NA	NA	34	9.6	5 U	NA
Silver	ug/L	NA	NA	NA	1.3 J [1.2 J]	NA	0.4 UJ	0.4 UJ	NA	0.4 UJ	NA	NA	0.085 J	0.4 U	NA	NA
Thallium	ug/L	NA	NA	NA	0.99 [0.94]	NA	0.078 J	0.19 J	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	NA
Vanadium	ug/L	NA	NA	NA	0.8 U [0.8 U]	NA	2.6	0.99	NA	0.14 J	NA	NA	5 J	1.6	NA	NA
Zinc	ug/L	NA	NA	NA	31 UJ [27 UJ]	NA	8.4	21	NA	45 J	NA	NA	620 J	42 U	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	1.2 U	29 J	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	1.5 J	NA	NA	3.1	36 J	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	67	NA	NA	220	180 J	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	R	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	2.2 J	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	1.9	NA	NA	2 U	220 J	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.91	NA	NA	2.2	17 J	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	5.6	NA	NA	3.4 U	130 J	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA	NA	5 U	5.4 J	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	18 J	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	2.6	NA	NA	150	430 J	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	R	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	27	360 J	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	2.1 J	NA	NA	52	51 J	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	R	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	0.2 U	R	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	0.8 U	7.4 J	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	9.9	NA	NA	14 J	190 J	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-44-05 10/21/11	RFI-44-05 11/08/12	RFI-44-06R 04/01/03	RFI-55-01 09/26/01	RFI-55-01 06/12/02	RFI-55-01 03/26/03	RFI-55-02 09/27/01	RFI-55-02 06/17/02	RFI-55-02 03/25/03	RFI-55-02 10/08/04	RFI-55-09 09/27/01	RFI-55-09 06/18/02	RFI-55-09 03/26/03	RFI-55-10 02/26/02	RFI-55-10 06/17/02	RFI-55-11 09/26/03
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	3	1.4	NA	2 [2]	2.7	2.8	2.3	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	30 U [30 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	0.81 J	1 U	NA	0.7 J [0.8 J]	12	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	0.42 J
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	2 U [2 U]	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	1 UJ [1 UJ]	1 U	1 U	1 U	1 UJ	1 U	1 U
1,2-Dibromoethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	NA	NA	1 U	1 U	1 U	1 U	11	5.8	NA	7 [7]	1 U	1 U	1 U	1 U	1 U	120 D
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	25 U	25 U	25 U	25 U	25 U	25 U	NA	30 U [30 U]	25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	1 U [1 U]	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	NA	NA	25 U	0.67 J	25 U	25 U	25 U	2.2 J	NA	30 U [30 U]	25 U	25 U	25 U	25 U	2.1 J	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	2 UJ [2 UJ]	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 UJ [5 UJ]	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1 U	1 U	1 U	1 U	3.5	1.4	NA	1 [1]	8.2	1 U	1 U	1 UJ	1 U	8.2
cis-1,3-Dichloropropene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	1 U [1 U]	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	1 U [1 U]	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	NA	1 U [1 U]	2 U	2 U	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	10 UJ [10 UJ]	5 U	5 U	5 U	5 U	5 U	5 UJ
Methyl tert-butyl ether	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	20 U [20 U]	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-44-05 10/21/11	RFI-44-05 11/08/12	RFI-44-06R 04/01/03	RFI-55-01 09/26/01	RFI-55-01 06/12/02	RFI-55-01 03/26/03	RFI-55-02 09/27/01	RFI-55-02 06/17/02	RFI-55-02 03/25/03	RFI-55-02 10/08/04	RFI-55-09 09/27/01	RFI-55-09 06/18/02	RFI-55-09 03/26/03	RFI-55-10 02/26/02	RFI-55-10 06/17/02	RFI-55-11 09/26/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1 U	1 U	0.59 J	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	9
trans-1,3-Dichloropropene	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	1 U	1 U	1 U	1 U	8.3	4.1	NA	8 [8]	1 U	1 U	1 U	1 U	1 U	18
Trichlorofluoromethane	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U [1 U]	2.1	1 U	1.3	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5.14 J
2,4,5-Trichlorophenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2,4,6-Trichlorophenol	ug/L	NA	NA	4 U	4.2 U	NA	NA	4.1 U	NA	NA	NA	4 U	NA	NA	NA	NA	4 U
2,4-Dichlorophenol	ug/L	NA	NA	10 U	11 U	NA	NA	10 U	NA	NA	NA	10 U	NA	NA	NA	NA	10 U
2,4-Dimethylphenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2,4-Dinitrophenol	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
2,4-Dinitrotoluene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2,6-Dinitrotoluene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2-Chloronaphthalene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2-Chlorophenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2-Methylnaphthalene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2-Methylphenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
2-Nitroaniline	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
2-Nitrophenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
3&4-Methylphenol	ug/L	NA	NA	10 UJ	11 UJ	NA	NA	10 UJ	NA	NA	NA	10 UJ	NA	NA	NA	NA	10 UJ
3,3'-Dichlorobenzidine	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	20 U	21 UJ	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
4-Bromophenyl-phenylether	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
4-Chloroaniline	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
4-Nitroaniline	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 UJ	NA	NA	NA	NA	20 U
4-Nitrophenol	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	1.22 J
Acenaphthene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Acenaphthylene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Acetophenone	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Anthracene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Atrazine	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Benzaldehyde	ug/L	NA	NA	5 UJ	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Benzo(a)anthracene	ug/L	NA	NA	1 U	1.1 U	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	1 U
Benzo(a)pyrene	ug/L	NA	NA	2 U	2.1 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
Benzo(b)fluoranthene	ug/L	NA	NA	2 U	2.1 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Benzo(k)fluoranthene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	1.5 U	1.1 U	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	24.7
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Butylbenzylphthalate	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Caprolactam	ug/L	NA	NA	10 U	11 U	NA	NA	10 U	NA	NA	NA	10 U	NA	NA	NA	NA	10 U
Carbazole	ug/L	NA	NA	10 U	11 U	NA	NA	10 U	NA	NA	NA	10 UJ	NA	NA	NA	NA	10 U
Chrysene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	2 U	2.1 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
Dibenzofuran	ug/L	NA	NA	4 U	4.2 U	NA	NA	4.1 U	NA	NA	NA	4 U	NA	NA	NA	NA	4 U
Diethylphthalate	ug/L	NA	NA	5 U	1.44 J	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-44-05 10/21/11	RFI-44-05 11/08/12	RFI-44-06R 04/01/03	RFI-55-01 09/26/01	RFI-55-01 06/12/02	RFI-55-01 03/26/03	RFI-55-02 09/27/01	RFI-55-02 06/17/02	RFI-55-02 03/25/03	RFI-55-02 10/08/04	RFI-55-09 09/27/01	RFI-55-09 06/18/02	RFI-55-09 03/26/03	RFI-55-10 02/26/02	RFI-55-10 06/17/02	RFI-55-11 09/26/03
Dimethylphthalate	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Di-n-Butylphthalate	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Di-n-Octylphthalate	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Fluoranthene	ug/L	NA	NA	2 U	2.1 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
Fluorene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Hexachlorobenzene	ug/L	NA	NA	1 U	1.1 U	NA	NA	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	1 U
Hexachlorobutadiene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Hexachlorocyclopentadiene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Hexachloroethane	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	2 U	2.1 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
Isophorone	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Methylphenols, Total	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Naphthalene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Nitrobenzene	ug/L	NA	NA	2 U	2.1 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA	NA	NA	2 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
N-Nitrosodiphenylamine	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Pentachlorophenol	ug/L	NA	NA	20 U	21 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA	NA	NA	20 U
Phenanthrene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Phenol	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
Pyrene	ug/L	NA	NA	5 U	5.3 U	NA	NA	5.1 U	NA	NA	NA	5 U	NA	NA	NA	NA	5 U
PCB																	
Aroclor-1016	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1221	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1232	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1242	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1248	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1254	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1260	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.1 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA	2.4 J
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	5.2	1 U	NA	NA	NA	NA	NA	NA	31
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	180	210	NA	NA	NA	NA	NA	NA	210
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	0.18 J	0.4 U	NA	NA	NA	NA	NA	NA	25 J
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	0.45	0.35	NA	NA	NA	NA	NA	NA	2.1 J
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	6.6	3.9	NA	NA	NA	NA	NA	NA	8,200
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	8.4	8.3	NA	NA	NA	NA	NA	NA	58
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	11 J	5.7	NA	NA	NA	NA	NA	NA	110 J
Cyanide (total)	ug/L	5 U	5 U	NA	13	NA	NA	83	34	54	NA	5 U	NA	NA	NA	NA	1,100 D
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	5.3	2.1	3 U [3 U]	NA	NA	NA	NA	NA	25
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	1,600	2,100	NA	NA	NA	NA	NA	NA	1,600 J
Mercury	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.235	0.2 U	NA	0.2 U	NA	NA	NA	NA	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-44-05 10/21/11	RFI-44-05 11/08/12	RFI-44-06R 04/01/03	RFI-55-01 09/26/01	RFI-55-01 06/12/02	RFI-55-01 03/26/03	RFI-55-02 09/27/01	RFI-55-02 06/17/02	RFI-55-02 03/25/03	RFI-55-02 10/08/04	RFI-55-09 09/27/01	RFI-55-09 06/18/02	RFI-55-09 03/26/03	RFI-55-10 02/26/02	RFI-55-10 06/17/02	RFI-55-11 09/26/03
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	21	31	NA	NA	NA	NA	NA	NA	130 J
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	1.4 U	1.6 U	NA	NA	NA	NA	NA	NA	6.6 J
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	0.4 U	0.27 J	NA	NA	NA	NA	NA	NA	1.1 J
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	1	0.066 J	NA	NA	NA	NA	NA	NA	1
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	12	0.12 J	NA	NA	NA	NA	NA	NA	0.8 U
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	41 J	16	NA	NA	NA	NA	NA	NA	170 J
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	NA	NA	1.2 U	1.5 U	NA	NA	1.2 U	NA	NA	NA	NA	2 J
Arsenic (Dissolved)	ug/L	NA	NA	NA	1 U	NA	NA	1 U	1.4 U	NA	NA	27	NA	NA	NA	NA	7.7 J
Barium (Dissolved)	ug/L	NA	NA	NA	120	NA	NA	160	160	NA	NA	210	NA	NA	NA	NA	140
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	0.4 U	0.4 UJ	NA	NA	0.4 U	NA	NA	NA	NA	30 J
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.3	0.38	NA	NA	0.2 U	NA	NA	NA	NA	1.7 J
Chromium Total (Dissolved)	ug/L	NA	NA	NA	1.1	NA	NA	0.6 U	8.6	NA	NA	0.6 U	NA	NA	NA	NA	8,000
Cobalt (Dissolved)	ug/L	NA	NA	NA	2.2	NA	NA	8	5.4	NA	NA	1.7	NA	NA	NA	NA	43
Copper (Dissolved)	ug/L	NA	NA	NA	2	NA	NA	3	4.6	NA	NA	13	NA	NA	NA	NA	25
Cyanide (dissolved)	ug/L	NA	NA	NA	12	NA	NA	83	25	NA	NA	5 U	NA	NA	NA	NA	1,100 D
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	0.4 U	0.4 U	NA	NA	0.4 U	NA	NA	NA	NA	0.68 J
Manganese (Dissolved)	ug/L	NA	NA	NA	470 J	NA	NA	2,400 J	1,600 J	NA	NA	670 J	NA	NA	NA	NA	680
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	NA	8.9	NA	NA	19	13	NA	NA	7.6	NA	NA	NA	NA	69
Selenium (Dissolved)	ug/L	NA	NA	NA	2.7 J	NA	NA	1.9 U	3.7	NA	NA	1.7 J	NA	NA	NA	NA	1.9 J
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	NA	NA	0.4 UJ	0.62 J	NA	NA	0.4 U	NA	NA	NA	NA	1.5 J
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.25	NA	NA	0.2 U	NA	NA	NA	NA	0.7 J
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	NA	NA	0.8 U	2.1	NA	NA	0.8 U	NA	NA	NA	NA	0.8 UJ
Zinc (Dissolved)	ug/L	NA	NA	NA	11	NA	NA	14	14	NA	NA	12 J	NA	NA	NA	NA	53
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-55-11 10/08/04	RFI-55-12 09/26/03	RFI-55-12 10/08/04	RFI-65-01 09/24/01	RFI-65-01 06/13/02	RFI-65-01 04/01/03	RFI-81-02 10/13/01	RFI-81-02 06/20/02	RFI-81-02 04/02/03	RFI-81-03 09/28/01	RFI-81-03 03/27/03	RFI-81-03 02/28/05	RFI-81-08 09/24/01	RFI-81-08 06/17/02	RFI-81-08 04/01/03	RFI-81-08 10/07/04	RFI-81-08 02/24/05
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	0.92 J	2.1	2.1	1 U	1 U	1 U	1 U	NA	1 U	1.2	1.1	1 U	0.4 J	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	NA	1 U	1 UJ	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	1 U	30 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	30 U	1 U	1 U	1 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	0.54 J	1 U	1 U	1 U	NA	1 U	3.1	1.1	4.7	2	2
1,1-Dichloroethene	ug/L	1 U	0.48 J	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	5 U	2 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	NA	2 U	5 U	5 U	5 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 UJ	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	69	50	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	25 U	30 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA	30 U	25 U	25 U	25 U	30 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 UJ	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	50 U	1 U	50 U	50 U	50 U	50 U	1.6 J	50 U	50 U	NA	1 U	50 U	50 U	50 U	1 U	1 U
Acetone	ug/L	30 U	25 U	30 UJ	25 U	25 U	25 U	25 U	25 U	25 U	25 U	NA	30 U	25 U	25 U	25 U	30 U	8 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	1 U
Bromomethane	ug/L	2 UJ	1 U	2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	R	1 U	1 U	1 U	2 UJ	R
Carbon Disulfide	ug/L	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 UJ	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U	1 UJ	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 UJ	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 U	1 U	1 U	1 UJ
cis-1,2-Dichloroethene	ug/L	5	1.3	0.6 J	49	37	19	2.9 J	1.1	1 U	1 U	NA	1 U	3.6	1.4	50	25	24
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	5 U	1 U	5 U	5 U	5 U	2 J	5 U	5 U	5 U	NA	1 U	5 U	5 U	5 U	1 UJ	1 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	1 U	5 U	5 U	5 U	1 U	1 U
m&p-Xylene	ug/L	1 U	2 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	1 U	2 U	2 U	2 U	1 U	1 U
Methyl acetate	ug/L	10 U	5 UJ	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	10 U	5 U	5 U	5 U	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	20 U	1 U	1 U	1 U	20 U	20 U
Methylene Chloride	ug/L	5 U	5 U	0.5 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-55-11 10/08/04	RFI-55-12 09/26/03	RFI-55-12 10/08/04	RFI-65-01 09/24/01	RFI-65-01 06/13/02	RFI-65-01 04/01/03	RFI-81-02 10/13/01	RFI-81-02 06/20/02	RFI-81-02 04/02/03	RFI-81-03 09/28/01	RFI-81-03 03/27/03	RFI-81-03 02/28/05	RFI-81-08 09/24/01	RFI-81-08 06/17/02	RFI-81-08 04/01/03	RFI-81-08 10/07/04	RFI-81-08 02/24/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	0.82 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 UJ	1 UJ	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	5 J	1 U	1 U	1 U	0.71 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	4.7	3 J	2
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	17	68	107	42	46	36	1.9	1 U	1 U	1 U	NA	1 U	11	7.7	2.6	2	2
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	3	1 U	1 U	1 U	1 U	1 U	12	7.2	10	1 U	NA	1 U	6.7	0.6 J	29	8	12 J
SVOC																		
1,1'-Biphenyl	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	3 J	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	5 U	4.2 U	NA	4.4 U	NA	NA	4.2 U	NA	NA	4.4 U	NA	NA	4.4 U	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	10 U	10 U	NA	11 U	NA	NA	11 U	NA	NA	11 U	NA	NA	11 U	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 UJ	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2-Chlorophenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2-Methylphenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
2-Nitrophenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	10 UJ	NA	11 UJ	NA	NA	11 UJ	NA	NA	11 UJ	NA	NA	11 UJ	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
3-Methylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 UJ	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5 U	5.2 U	NA	R	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
4-Nitroaniline	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 UJ	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
Acenaphthene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Acenaphthylene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Acetophenone	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Anthracene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Atrazine	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Benzaldehyde	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 UJ	NA	NA	5.6 U	NA	NA	5.6 UJ	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	1 U	1 U	NA	1.1 U	NA	NA	1.1 U	NA	NA	0.889 J	NA	NA	1.1 U	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	2 U	2.1 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.2 U	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2 U	2.1 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.2 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	17	3.84	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	1.11 J	NA	NA	5.6 U	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Caprolactam	ug/L	10 U	10 U	NA	11 U	NA	NA	11 U	NA	NA	11 U	NA	NA	11 U	NA	NA	NA	NA
Carbazole	ug/L	10 U	10 U	NA	11 U	NA	NA	11 U	NA	NA	11 U	NA	NA	11 UJ	NA	NA	NA	NA
Chrysene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2 U	2.1 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.2 U	NA	NA	NA	NA
Dibenzofuran	ug/L	5 U	4.2 U	NA	4.4 U	NA	NA	4.2 U	NA	NA	4.4 U	NA	NA	4.4 U	NA	NA	NA	NA
Diethylphthalate	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-55-11 10/08/04	RFI-55-12 09/26/03	RFI-55-12 10/08/04	RFI-65-01 09/24/01	RFI-65-01 06/13/02	RFI-65-01 04/01/03	RFI-81-02 10/13/01	RFI-81-02 06/20/02	RFI-81-02 04/02/03	RFI-81-03 09/28/01	RFI-81-03 03/27/03	RFI-81-03 02/28/05	RFI-81-08 09/24/01	RFI-81-08 06/17/02	RFI-81-08 04/01/03	RFI-81-08 10/07/04	RFI-81-08 02/24/05
Dimethylphthalate	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Fluoranthene	ug/L	2 U	2.1 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	1.18 J	NA	NA	2.2 U	NA	NA	NA	NA
Fluorene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Hexachlorobenzene	ug/L	5 U	1 U	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	1.1 U	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Hexachloroethane	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2 U	2.1 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.2 U	NA	NA	NA	NA
Isophorone	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Methylphenols, Total	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Naphthalene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Nitrobenzene	ug/L	5 U	2.1 U	NA	2.2 U	NA	NA	2.1 U	NA	NA	2.2 U	NA	NA	2.2 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	21 U	NA	22 U	NA	NA	21 U	NA	NA	22 U	NA	NA	22 U	NA	NA	NA	NA
Phenanthrene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Phenol	ug/L	5 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	5.6 U	NA	NA	5.6 U	NA	NA	NA	NA
Pyrene	ug/L	2 U	5.2 U	NA	5.6 U	NA	NA	5.3 U	NA	NA	1.07 J	NA	NA	5.6 U	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.1 U	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.11 U	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	5 U	13 J	5 U	NA	1.2 U	NA	NA	1.2 U	1.2 U	NA	0.7 J	NA	NA	1.2 U	1.2 U	NA	NA
Arsenic	ug/L	2 U	52 J	21	NA	1 U	NA	NA	80	91	NA	0.91 J	NA	NA	1.1 J	7.3	NA	NA
Barium	ug/L	NA	310	NA	NA	170 J	NA	NA	1,000	660	NA	86	NA	NA	130	1,000	NA	NA
Beryllium	ug/L	1	610 J	1 U	NA	0.4 UJ	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 UJ	0.4 U	NA	NA
Cadmium	ug/L	0.5 U	16 J	0.5 U	NA	0.33	NA	NA	0.2 U	0.2 U	NA	0.081 J	NA	NA	0.2 U	0.2 U	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	25,500	9.2 J	5 U	NA	2.1	NA	NA	1.5	2.3	NA	1.9	NA	NA	0.54 J	1.3	NA	NA
Cobalt	ug/L	23	17 J	5 U	NA	2.9	NA	NA	3.8	3.1	NA	0.33	NA	NA	0.58	3.3	NA	NA
Copper	ug/L	NA	52 J	NA	NA	6.2	NA	NA	2.6	4.3	NA	3.2	NA	NA	4.4	3.3	NA	NA
Cyanide (total)	ug/L	318	5 U	5 U	4 J	NA	NA	2.1 J	2.4 J	4.5 J	0.97 J	5 U	NA	1.9 J	5 U	2.8 J	NA	NA
Lead	ug/L	3 U	3.8 J	3 U	NA	0.28 J	NA	NA	1.4	10	NA	0.82	NA	NA	0.67	0.39 J	3 U	NA
Manganese	ug/L	848	860 J	563	NA	1,900 J	NA	NA	66	100 J	NA	45	NA	NA	1,400 J	3,300 J	1,360	NA
Mercury	ug/L	NA	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.129 J	0.2 U	0.2 U	0.123 J	NA	0.2 U	0.2 U	0.2 U	NA	NA

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Nickel	ug/L	85	65 J	7	NA	9.1	NA	NA	17	24	NA	7.6	NA	NA	15	31	NA	NA
Selenium	ug/L	NA	1.6 U	NA	NA	1.2 J	NA	NA	1.4 U	1.7 J	NA	1.6 U	NA	NA	1.4 U	1.9 J	NA	NA
Silver	ug/L	NA	9.6 J	NA	NA	0.4 UJ	NA	NA	0.13 J	0.4 U	NA	0.4 U	NA	NA	0.4 U	0.4 U	NA	NA
Thallium	ug/L	2 U	4.1 J	2 U	NA	0.17 J	NA	NA	0.13 J	0.2 U	NA	0.48	NA	NA	0.2 U	0.2 U	NA	NA
Vanadium	ug/L	NA	8 U	NA	NA	0.56 J	NA	NA	0.8 U	0.75 J	NA	0.54 J	NA	NA	0.8 U	0.8 U	NA	NA
Zinc	ug/L	NA	110 UJ	NA	NA	14 J	NA	NA	29 UJ	26	NA	13	NA	NA	12	27	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	NA	NA	1.2 U	NA	NA	1.2 U	1.7	NA	1.3	NA	NA	1.2 U	1.2 U	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	1.8 U	NA	NA	83	73	NA	1 U	NA	NA	7.8 J	1	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	250	NA	NA	540	870	NA	59	NA	NA	430 J	140	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	0.4 U	0.4 UJ	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	0.83	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	1.3	NA	NA	1.5	5.5	NA	0.6 U	NA	NA	0.86	2	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	4.6	NA	NA	1.9	3.2	NA	0.73	NA	NA	2.3	0.6	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	13 J	NA	NA	1.9	2.5	NA	4.9 U	NA	NA	15	5	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	2.9 J	NA	NA	1.6 J	3.2 J	NA	5 U	NA	NA	2.7 J	5 U	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	0.4 U	NA	NA	0.58	0.43	NA	0.4 U	NA	NA	0.4 U	0.4 U	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	1,300	NA	NA	58	58	NA	520	NA	NA	1,900 J	1,600	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	23	NA	NA	8	15	NA	4.5	NA	NA	16	15	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	1.4 U	NA	NA	3.5 J	1.8 J	NA	1.4 U	NA	NA	2.3 U	1.4 U	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	0.4 UJ	NA	NA	0.4 U	0.4 UJ	NA	0.4 U	NA	NA	0.4 UJ	0.4 U	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	0.2 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	0.8 U	NA	NA	0.8 U	0.8 U	NA	0.8 U	NA	NA	0.8 U	0.8 U	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	14	NA	NA	26	20 J	NA	8.8	NA	NA	21	14	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-08 10/18/10	RFI-81-09 09/24/01	RFI-81-09 02/22/02	RFI-81-09 06/18/02	RFI-81-09 04/01/03	RFI-81-11 09/24/01	RFI-81-11 06/19/02	RFI-81-11 04/01/03	RFI-81-11 06/05/13	RFI-81-12R 12/07/01	RFI-81-12R 06/20/02	RFI-81-12R 06/05/13	RFI-81-13 09/24/01	RFI-81-13 03/27/03	RFI-81-21 10/04/01	RFI-81-21 10/06/04
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.63 J	NA	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	30 U	1 U	1 U	NA	1 U	NA	1 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,1-Dichloroethane	ug/L	2	1 U	1 U	1 U	1 U	4.3	3.6	1.3	1 U	1 U	1 U	NA	1.6	NA	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	NA	5 U	NA	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	5 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 UJ	25 U	25 U	25 U	25 U	25 U	25 U	25 U	20 U	2.5 J	25 U	NA	25 U	NA	25 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U	NA	50 U	50 U
2-Methylnaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	10 U	50 U	50 U	NA	50 U	NA	50 U	1 U
Acetone	ug/L	50 UJ	25 U	25 U	25 U	25 U	25 U	2.5 J	25 U	20 U	25 U	25 U	NA	25 U	NA	25 U	30 U
Acrylonitrile	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Bromobenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 UJ
Bromomethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	NA	1 U	NA	1 U	2 UJ
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Chloroethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	3.5	NA	1 U	1 UJ
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Chloromethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
cis-1,2-Dichloroethene	ug/L	8	1 U	1 U	1 U	1 U	0.55 J	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Cyclohexane	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U	NA	5 U	NA	5 U	1 U
Dibromochloromethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Dibromomethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Diethyl ether	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Hexachloroethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U	NA	5 U	NA	5 U	1 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	NA	2 U	1 U
Methyl acetate	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U	NA	5 U	NA	5 U	10 UJ
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U
Methylcyclohexane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	NA	1 U	NA	1 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U
Naphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
p-Isopropyltoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U

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RACER Trust Buick City Site - Flint, Michigan

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tert-Butylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	5.9	11 J	10 J	2.8	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 UJ	1 U
Tetrahydrofuran	ug/L	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
trans-1,2-Dichloroethene	ug/L	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	2.9	NA	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
Vinyl Chloride	ug/L	1	1 U	1 U	1 U	1 U	1.6	1.2	1 U	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	4.3 U	NA	NA	NA	4.4 U	NA	NA	NA	4 U	NA	NA	4.2 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	11 U	NA	NA	NA	11 U	NA	NA	NA	10 U	NA	NA	11 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	21 UJ	NA	NA	NA	22 UJ	NA	NA	NA	20 U	NA	NA	21 UJ	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2-Chlorophenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	5.3 U	NA	NA	NA	5.5 UJ	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2-Methylphenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
2-Nitroaniline	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
2-Nitrophenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
3&4-Methylphenol	ug/L	NA	11 UJ	NA	NA	NA	11 UJ	NA	NA	NA	10 UJ	NA	NA	11 UJ	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	21 UJ	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 UJ	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
4-Chloroaniline	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
4-Nitroaniline	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
4-Nitrophenol	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
Acenaphthene	ug/L	NA	5.3 U	NA	NA	NA	0.593 J	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Acenaphthylene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Acetophenone	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Anthracene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Atrazine	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Benzaldehyde	ug/L	NA	5.3 UJ	NA	NA	NA	5.5 UJ	NA	NA	NA	5 U	NA	NA	5.3 UJ	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	1.1 U	NA	NA	NA	1.1 U	NA	NA	NA	1 U	NA	NA	1.1 U	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	2.1 U	NA	NA	NA	2.2 U	NA	NA	NA	2 U	NA	NA	2.1 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	2.1 U	NA	NA	NA	2.2 U	NA	NA	NA	2 U	NA	NA	2.1 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	1.1 U	NA	NA	NA	1.1 U	NA	NA	NA	1 U	NA	NA	1.1 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Caprolactam	ug/L	NA	11 U	NA	NA	NA	11 U	NA	NA	NA	10 U	NA	NA	11 U	NA	NA	NA
Carbazole	ug/L	NA	11 U	NA	NA	NA	11 U	NA	NA	NA	10 U	NA	NA	11 U	NA	NA	NA
Chrysene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	2.1 U	NA	NA	NA	2.2 U	NA	NA	NA	2 U	NA	NA	2.1 U	NA	NA	NA
Dibenzofuran	ug/L	NA	4.3 U	NA	NA	NA	4.4 U	NA	NA	NA	4 U	NA	NA	4.2 U	NA	NA	NA
Diethylphthalate	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA

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Location ID: / Date Collected:	Units	RFI-81-08 10/18/10	RFI-81-09 09/24/01	RFI-81-09 02/22/02	RFI-81-09 06/18/02	RFI-81-09 04/01/03	RFI-81-11 09/24/01	RFI-81-11 06/19/02	RFI-81-11 04/01/03	RFI-81-11 06/05/13	RFI-81-12R 12/07/01	RFI-81-12R 06/20/02	RFI-81-12R 06/05/13	RFI-81-13 09/24/01	RFI-81-13 03/27/03	RFI-81-21 10/04/01	RFI-81-21 10/06/04
Dimethylphthalate	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Fluoranthene	ug/L	NA	2.1 U	NA	NA	NA	2.2 U	NA	NA	NA	2 U	NA	NA	2.1 U	NA	NA	NA
Fluorene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Hexachlorobenzene	ug/L	NA	1.1 U	NA	NA	NA	1.1 U	NA	NA	NA	1 U	NA	NA	1.1 U	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Hexachloroethane	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2.1 U	NA	NA	NA	2.2 U	NA	NA	NA	2 U	NA	NA	2.1 U	NA	NA	NA
Isophorone	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Methylphenols, Total	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Naphthalene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Nitrobenzene	ug/L	NA	2.1 U	NA	NA	NA	2.2 U	NA	NA	NA	2 U	NA	NA	2.1 U	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Pentachlorophenol	ug/L	NA	21 U	NA	NA	NA	22 U	NA	NA	NA	20 U	NA	NA	21 U	NA	NA	NA
Phenanthrene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Phenol	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
Pyrene	ug/L	NA	5.3 U	NA	NA	NA	5.5 U	NA	NA	NA	5 U	NA	NA	5.3 U	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1221	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1232	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1242	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1248	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1254	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1260	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	0.12 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	0.1 U	NA	NA	0.11 U	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	1.3 U	1.2 U	NA	NA	1.2 U	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	11	6.4	4	7.9	1.4	NA	NA	1 J	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	220	1,000	NA	130	120	NA	NA	500	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	0.23 J	0.4 U	NA	NA	0.4 U	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.16 J	0.093 J	NA	NA	0.2 U	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	0.97	1.9	NA	5.6	1.5	NA	NA	0.86	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	0.26	1.2	NA	3.4	2.2	NA	NA	0.18 J	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	4 J	3.6	NA	8.9	3.6	NA	NA	1.4	NA	NA
Cyanide (total)	ug/L	NA	3.8 J	NA	NA	NA	8.1	10	11	5 U	5 U	5 U	NA	1.5 J	5 U	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	47	21	26	2.9	0.8	NA	NA	0.45	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	450	2,000 J	87	380	270	NA	NA	180	NA	NA
Mercury	ug/L	NA	0.2 U	NA	NA	NA	0.2 U	0.194 J	0.2 U	0.2 U	0.2 U	0.149 J	0.2 U	0.2 U	0.2 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-08 10/18/10	RFI-81-09 09/24/01	RFI-81-09 02/22/02	RFI-81-09 06/18/02	RFI-81-09 04/01/03	RFI-81-11 09/24/01	RFI-81-11 06/19/02	RFI-81-11 04/01/03	RFI-81-11 06/05/13	RFI-81-12R 12/07/01	RFI-81-12R 06/20/02	RFI-81-12R 06/05/13	RFI-81-13 09/24/01	RFI-81-13 03/27/03	RFI-81-21 10/04/01	RFI-81-21 10/06/04
Nickel	ug/L	NA	NA	NA	NA	NA	NA	3.1	25	NA	10	6.2	NA	NA	5.7	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	1.4 U	1.6 U	NA	3.4	0.59 J	NA	NA	1.6 U	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	1.2	0.4 UJ	0.5 U	NA	0.4 U	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.15 J	0.15 J	NA	NA	0.2 U	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	0.5 J	0.8 U	NA	8.6	1.4	NA	NA	0.8 U	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	15 J	25	NA	28	21 UJ	NA	NA	16	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	NA	1.2 U	1.2 U	NA	NA	1.3 U	1.2 U	NA	1.2 U	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	2.6 J	NA	NA	NA	13 J	9.7	NA	NA	3.4	1 U	NA	2.3 J	NA	NA	NA
Barium (Dissolved)	ug/L	NA	240 J	NA	NA	NA	370 J	190	NA	NA	96	87	NA	500 J	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	0.4 U	0.4 UJ	NA	NA	0.7 J	0.4 U	NA	0.4 U	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.21 J	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.22	0.2 U	NA	0.2 U	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	0.6 U	NA	NA	NA	0.6 U	3	NA	NA	3	1.9	NA	0.6 U	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	2	NA	NA	NA	0.29	0.22	NA	NA	1.4	1.2	NA	0.28	NA	NA	NA
Copper (Dissolved)	ug/L	NA	1.7	NA	NA	NA	5.5	4.2	NA	NA	0.6 U	11	NA	4.8	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	3.6 J	NA	NA	NA	8.2	8.9	NA	NA	5 U	1.3 J	NA	1.6 J	NA	NA	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	0.4 U	0.4 U	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	700 J	NA	NA	NA	460 J	370 J	NA	NA	280	200	NA	160 J	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	6	NA	NA	NA	4.3	3.4	NA	NA	3.1	4	NA	4.4	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	3.5 J	NA	NA	NA	1.4 U	1.6 U	NA	NA	2.4	1.4 U	NA	1.4 U	NA	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 UJ	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	1.4	0.4 UJ	NA	0.4 UJ	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	0.8 U	NA	NA	NA	0.8 U	0.85	NA	NA	1.2	0.81	NA	0.8 U	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	8.1	NA	NA	NA	12	13	NA	NA	31	15 J	NA	14	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-33 02/19/02	RFI-81-33 06/20/02	RFI-81-33 04/03/03	RFI-81-33 10/06/04	RFI-81-33 06/05/13	RFI-81-33 09/17/13	RFI-81-35 02/19/02	RFI-81-35 06/18/02	RFI-81-35 04/01/03	RFI-81-39R 09/17/03	RFI-81-39R 10/11/04	RFI-81-50 04/04/05	RFI-81-50 11/02/06	RFI-81-50 10/31/07	RFI-81-50 09/16/08	RFI-81-50 09/24/09	RFI-81-50 10/18/10
VOC																		
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	30 U	NA	NA	1 U	1 U	NA	1 U	30 U	NA	30 U	30 U	30 U	30 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	0.69 J	0.7 J	NA	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	2 U	NA	NA	5 U	5 U	NA	5 U	2 U	NA	2 U	2 U	2 U	2 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	5 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	30 U	NA	NA	25 U	25 U	NA	25 U	30 U	NA	20 UJ	20 U	20 U	20 U	30 UJ
2-Hexanone	ug/L	50 U	50 U	50 U	50 UJ	NA	NA	50 U	50 U	NA	50 U	50 U	NA	50 UJ	50 U	50 UJ	50 U	50 UJ
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	1 U	NA	NA	50 U	50 U	NA	50 U	1 U	NA	10 U	10 U	10 U	10 U	50 U
Acetone	ug/L	25 U	25 U	25 U	30 U	NA	NA	25 U	1.9 J	NA	25 U	30 U	NA	20 UJ	20 U	20 U	20 U	50 UJ
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Benzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	0.43 J	0.5 J	NA	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 UJ	NA	NA	1 U	1 U	NA	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 U	1 U	1 U	2 UJ	NA	NA	1 U	1 U	NA	1 U	2 UJ	NA	2 U	2 U	2 UJ	2 U	5 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U	NA	5 U	5 UJ	NA	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 UJ	NA	NA	1 U	1 U	NA	1 U	1 UJ	NA	1 U	1 U	1 UJ	1 U	5 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	5 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 UJ	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	5 U	1 U	NA	NA	5 U	5 U	NA	5 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	5 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	5 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1.2	1 U	NA	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Isopropylbenzene	ug/L	5 U	5 U	5 U	1 U	NA	NA	5 U	5 U	NA	23	22 J	NA	1 U	1 U	1 U	1 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	1 U	NA	NA	2 U	2 U	NA	1.7 J	1 U	NA	0.1 J	1 U	1 U	0.3	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	10 U	NA	NA	5 U	5 U	NA	5 U	10 U	NA	10 U	10 U	10 U	10 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	1 U	20 U	NA	NA	1 U	1 U	NA	0.86 J	1 J	NA	20 U	20 U	20 U	20 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	NA	NA	5 U	5 U	NA	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
o-Xylene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	0.5 J	1 U	NA	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Styrene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-33 02/19/02	RFI-81-33 06/20/02	RFI-81-33 04/03/03	RFI-81-33 10/06/04	RFI-81-33 06/05/13	RFI-81-33 09/17/13	RFI-81-35 02/19/02	RFI-81-35 06/18/02	RFI-81-35 04/01/03	RFI-81-39R 09/17/03	RFI-81-39R 10/11/04	RFI-81-50 04/04/05	RFI-81-50 11/02/06	RFI-81-50 10/31/07	RFI-81-50 09/16/08	RFI-81-50 09/24/09	RFI-81-50 10/18/10
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U
Toluene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	0.2 J	NA	1 U	1 U	1 U	0.2	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	0.4 J	0.2 J	1 U	0.8	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U
SVOC																		
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																		
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	ug/L	NA	1.2 U	0.86 J	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	5.6	4.9	NA	NA	NA	NA	9.6	3.3	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	120	110	121	NA	NA	NA	63	100	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	0.4 U	0.4 U	NA	NA	NA	NA	0.4 UJ	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	0.2 U	0.072 J	0.5 U	NA	NA	NA	0.13 J	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	0.46 J	0.26 J	NA	NA	NA	NA	3.7	1.4	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	1.3	1.4	NA	NA	NA	NA	0.78	0.31	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	5.9	2.4 U	NA	NA	NA	NA	28 J	2.1	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	5 U	5 U	NA	NA	NA	NA	5 U	3.8 J	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	0.25 J	0.15 J	3 U	NA	NA	NA	6.1	0.5	NA	NA	3 U [3 U]	NA	3 U	NA	3 U	NA
Manganese	ug/L	NA	880	790 J	NA	NA	NA	NA	210	240 J	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.119 J	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-33 02/19/02	RFI-81-33 06/20/02	RFI-81-33 04/03/03	RFI-81-33 10/06/04	RFI-81-33 06/05/13	RFI-81-33 09/17/13	RFI-81-35 02/19/02	RFI-81-35 06/18/02	RFI-81-35 04/01/03	RFI-81-39R 09/17/03	RFI-81-39R 10/11/04	RFI-81-50 04/04/05	RFI-81-50 11/02/06	RFI-81-50 10/31/07	RFI-81-50 09/16/08	RFI-81-50 09/24/09	RFI-81-50 10/18/10
Nickel	ug/L	NA	4.4	5	5 U	NA	NA	NA	4.5	6	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	1.4 U	1.6 U	NA	NA	NA	NA	1.4 U	1.6 U	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	0.4 UJ	0.11 J	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	0.2 U	0.2 U	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	0.8 U	0.098 J	NA	NA	NA	NA	12	2.8	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	15 UJ	33	5 U	NA	NA	NA	20 J	8.5	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																		
Antimony (Dissolved)	ug/L	NA	1.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	0.4 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	8.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																		
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.915	1.224	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.1 -	16.6	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.89	7.07	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	65	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.68	17	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.76	3.56	NA
Field Parameters-Filtered																		
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120	330	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-50 10/24/11	RFI-81-50 11/08/12	RFI-81-51 04/04/05	RFI-81-51 10/29/07	RFI-81-51 09/16/08	RFI-81-51 09/24/09	RFI-81-51 10/24/11	RFI-81-51 11/08/12	RFI-81-51 06/05/13	RFI-83/84-01 09/21/01	RFI-83/84-01 04/04/05	RFI-83/84-02 10/01/01	RFI-83/84-02 12/18/02	RFI-83/84-02-ULF 10/01/01	RFI-83/84-11 09/24/01
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	NA	NA	1 U [1 U]	0.8 J	2	5 U	2	2	2	1 U	NA	1 U	NA	NA	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 UJ	NA	NA	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	NA	30 U [30 U]	30 U	30 U	200 U	30 U	30 U	30 U	1 U	NA	1 U	NA	NA	1 U
1,1,2-Trichloroethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,1-Dichloroethane	ug/L	NA	NA	4 [4]	4	1	5	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,1-Dichloroethene	ug/L	NA	NA	0.6 J [0.5 J]	0.4 J	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	2 U [2 U]	2 U	2 U	10 U	2 U	2 U	2 U	5 U	NA	5 U	NA	NA	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	NA	NA	1 UJ [1 UJ]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,2-Dibromoethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,2-Dichlorobenzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,2-Dichloroethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,2-Dichloropropane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,4-Dichlorobenzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	NA	30 U [30 U]	20 U	20 U	100 U	20 U	20 U	20 U	25 U	NA	0.53 J	NA	NA	25 U
2-Hexanone	ug/L	NA	NA	50 U [50 U]	50 U	50 UJ	300 U	50 U	50 U	50 U	50 U	NA	50 U	NA	NA	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	NA	NA	1 U [1 U]	10 U	10 U	50 U	10 U	10 U	10 U	50 U	NA	50 U	NA	NA	50 U
Acetone	ug/L	NA	NA	30 U [30 U]	20 U	20 UJ	100 U	20 U	20 U	20 U	25 U	NA	25 U	NA	NA	4.8 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	0.6	1 U	1 U	1 U	1.1	NA	1 U	NA	NA	40
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Bromoform	ug/L	NA	NA	1 UJ [1 UJ]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Bromomethane	ug/L	NA	NA	R [R]	2 U	2 UJ	10 U	2 U	2 U	2 U	1 UJ	NA	1 U	NA	NA	1 U
Carbon Disulfide	ug/L	NA	NA	5 UJ [5 UJ]	5 U	5 U	30 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	5 U
Carbon Tetrachloride	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Chlorobenzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Chloroethane	ug/L	NA	NA	1 U [1 U]	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Chloroform	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Chloromethane	ug/L	NA	NA	1 U [1 U]	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
cis-1,2-Dichloroethene	ug/L	NA	NA	162 [159]	161	3	229	3	1	1	0.59 J	NA	1 U	NA	NA	5.4
cis-1,3-Dichloropropene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Cyclohexane	ug/L	NA	NA	1 UJ [1 UJ]	1 U	1 UJ	5 U	1 U	1 U	1 U	5 U	NA	5 U	NA	NA	55 J
Dibromochloromethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	NA	NA	1 UJ [1 UJ]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	95
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	5 U	NA	5 U	NA	NA	23
m&p-Xylene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	2 U	2 U	2 U	2 U	NA	2 U	NA	NA	170
Methyl acetate	ug/L	NA	NA	10 U [10 U]	10 U	10 U	50 U	10 U	10 U	10 U	5 U	NA	5 U	NA	NA	5 U
Methyl tert-butyl ether	ug/L	NA	NA	5 U [5 U]	5 U	5 U	30 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	5 U
Methylcyclohexane	ug/L	NA	NA	20 UJ [20 UJ]	20 U	20 U	100 U	20 U	20 U	20 U	1 U	NA	1 U	NA	NA	10
Methylene Chloride	ug/L	NA	NA	5 U [5 U]	5 U	5 U	30 U	5 U	5 U	5 U	5 U	NA	5 U	NA	NA	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	13
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	NA	NA	1 U [1 U]	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U

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Location ID: / Date Collected:	Units	RFI-81-50 10/24/11	RFI-81-50 11/08/12	RFI-81-51 04/04/05	RFI-81-51 10/29/07	RFI-81-51 09/16/08	RFI-81-51 09/24/09	RFI-81-51 10/24/11	RFI-81-51 11/08/12	RFI-81-51 06/05/13	RFI-83/84-01 09/21/01	RFI-83/84-01 04/04/05	RFI-83/84-02 10/01/01	RFI-83/84-02 12/18/02	RFI-83/84-02-ULF 10/01/01	RFI-83/84-11 09/24/01
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	1 U [1 U]	2	6	1	7	8	8	1 U	NA	1 U	NA	NA	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	11
trans-1,2-Dichloroethene	ug/L	NA	NA	7 [6]	6	1 U	10	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	0.8 J [0.8 J]	25	70	10	67	82	61	1.6	NA	1 U	NA	NA	35
Trichlorofluoromethane	ug/L	NA	NA	1 U [1 U]	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
Vinyl Chloride	ug/L	NA	NA	64 [65]	54	0.3 J	68	1 U	1 U	1 U	1 U	NA	1 U	NA	NA	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U	5 U [5 U]	4 U	NA	NA	4.4 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	NA	NA	11 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ [20 UJ]	20 U	NA	NA	22 UJ
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	1.49 J
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U [20 U]	20 U	NA	NA	22 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	NA	10 UJ	NA	NA	11 UJ
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U [20 U]	20 U	NA	NA	22 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U [20 U]	20 U	NA	NA	22 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 UJ [20 UJ]	20 U	NA	NA	22 UJ
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U [20 U]	20 U	NA	NA	22 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	5 U [5 U]	5 U	NA	NA	R
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U [20 U]	20 U	NA	NA	22 U
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	20 U [20 U]	20 U	NA	NA	22 U
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 UJ
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	5 U [5 U]	1 U	NA	NA	1.1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	5 U [5 U]	2 U	NA	NA	2.2 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	5 U [5 U]	2 U	NA	NA	2.2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	5 U [5 U]	1 U	NA	NA	1.1 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	NA	NA	11 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	NA	NA	11 U
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	5 U [5 U]	2 U	NA	NA	2.2 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 U	5 U [5 U]	4 U	NA	NA	4.4 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-50 10/24/11	RFI-81-50 11/08/12	RFI-81-51 04/04/05	RFI-81-51 10/29/07	RFI-81-51 09/16/08	RFI-81-51 09/24/09	RFI-81-51 10/24/11	RFI-81-51 11/08/12	RFI-81-51 06/05/13	RFI-83/84-01 09/21/01	RFI-83/84-01 04/04/05	RFI-83/84-02 10/01/01	RFI-83/84-02 12/18/02	RFI-83/84-02-ULF 10/01/01	RFI-83/84-11 09/24/01
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	5 U [5 U]	2 U	NA	NA	2.2 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	5 U [5 U]	1 U	NA	NA	1.1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	5 U [5 U]	2 U	NA	NA	2.2 U
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	34.7
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	5 U [5 U]	2 U	NA	NA	2.2 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20 U	1 U [1 U]	20 U	NA	NA	22 U
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	5 U	NA	NA	5.6 U
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.11 U	NA	NA	0.11 U
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.1	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170 J	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 UJ	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 J	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1 J	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	51	NA	8.3	3 J	10	7.9
Lead	ug/L	3 U	3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.65 J	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,000	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-81-50 10/24/11	RFI-81-50 11/08/12	RFI-81-51 04/04/05	RFI-81-51 10/29/07	RFI-81-51 09/16/08	RFI-81-51 09/24/09	RFI-81-51 10/24/11	RFI-81-51 11/08/12	RFI-81-51 06/05/13	RFI-83/84-01 09/21/01	RFI-83/84-01 04/04/05	RFI-83/84-02 10/01/01	RFI-83/84-02 12/18/02	RFI-83/84-02-ULF 10/01/01	RFI-83/84-11 09/24/01
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 J	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6 U	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 J	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 J	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15 J	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	1.2 U	NA	NA	1.2 U
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8 J	NA	67 U	NA	NA	6.2
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	110 J	NA	170	NA	NA	310
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	0.4 UJ
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	NA	0.6 U	NA	NA	0.6 U
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.67	NA	0.45	NA	NA	0.28
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.6	NA	1.5 U	NA	NA	1.9 J
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	NA	8.5	NA	NA	6.4
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	NA	0.4 U
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	480	NA	1,100	NA	NA	560
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.7	NA	5.1	NA	NA	3.7
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6 J	NA	19	NA	NA	1.4 U
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA	0.4 U	NA	NA	0.4 UJ
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	0.8 U	NA	NA	6.4
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	6 U	NA	19	NA	NA	25
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	10.38	5.224	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	0.3	18	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	6.83	7.08	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	60	81	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	18.38	17.64	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	0.92	4.67	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	180	960	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-11 06/19/02	RFI-83/84-11 04/01/03	RFI-83/84-11 10/07/04	RFI-83/84-20 02/22/02	RFI-83/84-20 06/20/02	RFI-83/84-20 04/02/03	RFI-83/84-27 02/21/02	RFI-83/84-27 06/18/02	RFI-83/84-27 04/02/03	RFI-83/84-27 10/07/04	RFI-83/84-29 02/21/02	RFI-83/84-29 06/18/02	RFI-83/84-29 04/01/03
VOC														
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	200 U	1 U	NA	NA	1 U	NA	1 U	30 U	1 U	NA	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,1-Dichloroethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,1-Dichloroethene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	0.75 J	5 U	10 U	5 U	NA	NA	5 U	NA	5 U	2 U	5 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 UJ	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,2-Dibromoethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,2-Dichloroethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,2-Dichloropropane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	100 U	25 U	NA	NA	25 U	NA	25 U	30 U	25 U	NA	NA
2-Hexanone	ug/L	50 U	50 U	300 U	50 U	NA	NA	50 U	NA	50 U	50 UJ	50 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 UJ	50 U	5 U	50 U	NA	NA	50 U	NA	50 U	1 U	50 U	NA	NA
Acetone	ug/L	23 J	25 U	30 J	25 U	NA	NA	25 U	NA	25 U	9 J	25 U	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	160 D	23	67	1 U	NA	NA	1 U	NA	1 U	0.4 J	1 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Bromoform	ug/L	1 U	1 U	5 UJ	1 U	NA	NA	1 U	NA	1 U	1 UJ	1 U	NA	NA
Bromomethane	ug/L	1 U	1 U	10 UJ	1 U	NA	NA	1 U	NA	1 U	2 UJ	1 U	NA	NA
Carbon Disulfide	ug/L	5 U	5 U	30 UJ	5 U	NA	NA	5 U	NA	5 U	5 U	5 U	NA	NA
Carbon Tetrachloride	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Chlorobenzene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Chloroethane	ug/L	1 U	1 U	5 UJ	1 U	NA	NA	1 U	NA	1 U	1 UJ	1 U	NA	NA
Chloroform	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Chloromethane	ug/L	16	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
cis-1,2-Dichloroethene	ug/L	0.9 J	1	5 U	0.83 J	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Cyclohexane	ug/L	57	69	64 J	5 U	NA	NA	5 U	NA	5 U	1 U	5 U	NA	NA
Dibromochloromethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	5 UJ	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	490 D	84	565	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	18 J	13	13	5 U	NA	NA	5 U	NA	5 U	0.2 J	5 U	NA	NA
m&p-Xylene	ug/L	1,300 D	130	748 J	2 U	NA	NA	1.2 J	NA	2 U	0.6 J	2 U	NA	NA
Methyl acetate	ug/L	5 U	5 U	50 U	5 U	NA	NA	5 U	NA	5 U	10 U	5 U	NA	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	30 U	5 U	NA	NA	5 U	NA	5 U	5 U	5 U	NA	NA
Methylcyclohexane	ug/L	9	22	3 J	1 U	NA	NA	1 U	NA	1 U	0.3 J	1 U	NA	NA
Methylene Chloride	ug/L	5 UJ	5 U	10 J	5 U	NA	NA	5 U	NA	5 U	5 U	5 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	620 D	5.4	238	1 U	NA	NA	1.5	NA	1 U	0.6 J	1 U	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-11 06/19/02	RFI-83/84-11 04/01/03	RFI-83/84-11 10/07/04	RFI-83/84-20 02/22/02	RFI-83/84-20 06/20/02	RFI-83/84-20 04/02/03	RFI-83/84-27 02/21/02	RFI-83/84-27 06/18/02	RFI-83/84-27 04/02/03	RFI-83/84-27 10/07/04	RFI-83/84-29 02/21/02	RFI-83/84-29 06/18/02	RFI-83/84-29 04/01/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	2,300 D	12	640	1 U	NA	NA	1 U	NA	1 U	0.4 J	1 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1.9	1 U	5 U	1.5	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Trichlorofluoromethane	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
Vinyl Chloride	ug/L	1 U	1 U	5 U	1 U	NA	NA	1 U	NA	1 U	1 U	1 U	NA	NA
SVOC														
1,1'-Biphenyl	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	4 U	NA	NA	4 U	NA	NA	NA	4 U	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	10 U	NA	NA	10 U	NA	NA	NA	10 U	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	5 U	NA	NA	0.95 J	NA	NA	NA	5 U	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	10 UJ	NA	NA	10 UJ	NA	NA	NA	10 UJ	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	R	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
Acenaphthene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Acetophenone	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Anthracene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Atrazine	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	5 UJ	NA	NA	5 UJ	NA	NA	NA	5 UJ	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	2 UJ	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	2 UJ	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5 UJ	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	5 UJ	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Caprolactam	ug/L	NA	NA	NA	10 U	NA	NA	10 U	NA	NA	NA	10 U	NA	NA
Carbazole	ug/L	NA	NA	NA	10 U	NA	NA	10 U	NA	NA	NA	10 U	NA	NA
Chrysene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	2 UJ	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	4 U	NA	NA	4 U	NA	NA	NA	4 U	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-11 06/19/02	RFI-83/84-11 04/01/03	RFI-83/84-11 10/07/04	RFI-83/84-20 02/22/02	RFI-83/84-20 06/20/02	RFI-83/84-20 04/02/03	RFI-83/84-27 02/21/02	RFI-83/84-27 06/18/02	RFI-83/84-27 04/02/03	RFI-83/84-27 10/07/04	RFI-83/84-29 02/21/02	RFI-83/84-29 06/18/02	RFI-83/84-29 04/01/03
Dimethylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	5 U	NA	NA	1.56 J	NA	NA	NA	5 U	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	5 UJ	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Fluoranthene	ug/L	NA	NA	NA	2 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
Fluorene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	2 UJ	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
Isophorone	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	5 U	NA	NA	2.97 J	NA	NA	NA	5 U	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	2 U	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	20 U	NA	NA	20 U	NA	NA	NA	20 U	NA	NA
Phenanthrene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Phenol	ug/L	NA	NA	NA	5 U	NA	NA	1.34 J	NA	NA	NA	5 U	NA	NA
Pyrene	ug/L	NA	NA	NA	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
PCB														
Aroclor-1016	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved														
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA	NA	0.1 U	NA	NA
Inorganic														
Antimony	ug/L	1.2 U	NA	NA	NA	1.2 U	1.2 U	NA	1.2 U	NA	NA	NA	1.2 U	1.2 U
Arsenic	ug/L	4.7	NA	NA	NA	14	23	NA	3.1	NA	NA	NA	5.5	6.1
Barium	ug/L	59	NA	NA	NA	120	130	NA	310	NA	NA	NA	150	210
Beryllium	ug/L	0.4 UJ	NA	NA	NA	0.4 U	0.4 U	NA	0.4 UJ	NA	1 U	NA	0.4 UJ	0.4 U
Cadmium	ug/L	0.15 J	NA	NA	NA	0.14 J	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	0.2 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	2.3	NA	NA	NA	0.61	0.29 J	NA	1.1	NA	NA	NA	0.71	0.95
Cobalt	ug/L	2.2	NA	NA	NA	6	2.4	NA	3.7	NA	NA	NA	0.95	0.99
Copper	ug/L	19 J	NA	NA	NA	6.3	4.6	NA	2.5 J	NA	NA	NA	3.6 J	3.3
Cyanide (total)	ug/L	4.8 J	NA	NA	1.1 J	5 U	5 U	7.2	7.4	NA	NA	2.3 J	5 U	5 U
Lead	ug/L	1.6	NA	NA	NA	17	1.6	NA	0.92	NA	NA	NA	0.3 J	0.13 J
Manganese	ug/L	310	NA	NA	NA	610	600 J	NA	170	NA	NA	NA	1,200	570 J
Mercury	ug/L	0.264	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.208	NA	NA	0.2 U	0.177 J	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Nickel	ug/L	6.7	NA	NA	NA	18	21	NA	5.9	NA	NA	NA	6.8	12
Selenium	ug/L	1.4 U	NA	NA	NA	1.4 U	1.6 U	NA	1.4 U	NA	NA	NA	1.4 U	1.6 U
Silver	ug/L	0.4 U	NA	NA	NA	0.4 UJ	0.4 U	NA	0.4 U	NA	NA	NA	0.4 U	0.4 U
Thallium	ug/L	0.1 J	NA	NA	NA	0.073 J	0.2 U	NA	0.2 U	NA	NA	NA	0.2 U	0.2 U
Vanadium	ug/L	2.9	NA	NA	NA	0.8 U	0.09 J	NA	0.54 J	NA	NA	NA	0.8 U	0.8 U
Zinc	ug/L	21 J	NA	NA	NA	14 UJ	9.3	NA	12 J	NA	NA	NA	14 J	17
Miscellaneous														
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved														
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	1.2 UJ	NA	NA	1.7 U	NA	NA	NA	1.3 U	NA	NA
Arsenic (Dissolved)	ug/L	3.4	NA	NA	17 J	NA	NA	4.7 J	NA	NA	NA	7.9	NA	NA
Barium (Dissolved)	ug/L	45	NA	NA	130 J	NA	NA	330	NA	NA	NA	110	NA	NA
Beryllium (Dissolved)	ug/L	0.4 UJ	NA	NA	11 J	NA	NA	21 J	NA	NA	NA	23 J	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	NA	NA	1.1 J	NA	NA	1.4 J	NA	NA	NA	1.3 J	NA	NA
Chromium Total (Dissolved)	ug/L	3.1	NA	NA	14 J	NA	NA	12	NA	NA	NA	14	NA	NA
Cobalt (Dissolved)	ug/L	1.2	NA	NA	6 J	NA	NA	2.3	NA	NA	NA	1.8	NA	NA
Copper (Dissolved)	ug/L	1.3	NA	NA	6.8 J	NA	NA	7.3 J	NA	NA	NA	6.9 J	NA	NA
Cyanide (dissolved)	ug/L	5.3	NA	NA	5 U	NA	NA	6.6	NA	NA	NA	3.3 J	NA	NA
Lead (Dissolved)	ug/L	0.4 U	NA	NA	3.3 J	NA	NA	0.88	NA	NA	NA	0.62 J	NA	NA
Manganese (Dissolved)	ug/L	250 J	NA	NA	920 J	NA	NA	200	NA	NA	NA	1,100	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	0.2 U	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	3.9	NA	NA	24 J	NA	NA	12	NA	NA	NA	12	NA	NA
Selenium (Dissolved)	ug/L	1.5 U	NA	NA	2.6 J	NA	NA	1.4 U	NA	NA	NA	1.4 U	NA	NA
Silver (Dissolved)	ug/L	0.4 U	NA	NA	0.47 J	NA	NA	0.92 J	NA	NA	NA	1.1 J	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	0.71 J	NA	NA	0.56 U	NA	NA	NA	0.47 U	NA	NA
Vanadium (Dissolved)	ug/L	1.1	NA	NA	2.3 J	NA	NA	0.8 U	NA	NA	NA	0.99	NA	NA
Zinc (Dissolved)	ug/L	7.1	NA	NA	15 J	NA	NA	24	NA	NA	NA	21	NA	NA
Field Parameters														
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered														
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-51 09/19/03	RFI-83/84-51 10/14/03	RFI-84-03D 07/29/05	RFI-84-03I 07/29/05	RFI-84-03S 07/29/05	RFI-84-04D 07/28/05	RFI-84-04I 07/28/05	RFI-84-05 10/02/01	RFI-84-05 12/17/02	RFI-84-05 03/24/03	RFI-84-05 02/25/05	RFI-84-05 06/08/05	RFI-84-06R 04/02/03	RFI-84-06R 04/03/03	RFI-84-06R 02/25/05
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	NA	1 U	1 U	11 [11]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	NA	30 U	30 U	30 U [30 U]	30 U	30 U	1 U	1 U	1 U	30 U	30 U	1 U	NA	NA
1,1,2-Trichloroethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,1-Dichloroethane	ug/L	0.52 J	NA	1 U	1 U	5 [5]	1 U	1 U	16	18	13	6	5	1 U	NA	NA
1,1-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	NA	2 U	2 U	2 U [2 U]	2 U	2 U	5 U	5 U	5 U	2 U	2 U	5 U	NA	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	NA
1,2-Dibromoethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,2-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,2-Dichloroethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,2-Dichloropropane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	NA	30 U	30 U	30 U [30 U]	30 U	30 U	25 U	25 U	25 U	30 U	30 U	25 U	NA	NA
2-Hexanone	ug/L	50 U	NA	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	50 U	50 U	50 U	1 U	1 U	50 U	NA	NA
Acetone	ug/L	25 U	NA	10 J	30 U	30 U [30 U]	30 U	30 U	25 U	25 U	25 U	30 U	30 U	25 U	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Bromoform	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	NA
Bromomethane	ug/L	1 U	NA	2 U	2 U	2 U [2 U]	2 U	2 U	1 U	1 U	1 U	R	2 U	1 U	NA	NA
Carbon Disulfide	ug/L	5 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	NA	NA
Carbon Tetrachloride	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	NA
Chlorobenzene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chloroethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chloroform	ug/L	1 U	NA	2	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Chloromethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	NA	NA
cis-1,2-Dichloroethene	ug/L	1 U	NA	0.5 J	2	1 [2]	1 U	1 U	1 U	1 U	1 U	0.3 J	0.3 J	1 U	NA	NA
cis-1,3-Dichloropropene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Cyclohexane	ug/L	5 U	NA	1 UJ	1 UJ	1 UJ [1 UJ]	1 UJ	1 UJ	5 U	5 U	5 U	1 UJ	1 U	5 U	NA	NA
Dibromochloromethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	NA
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	1 U	1 U	5 U	NA	NA
m&p-Xylene	ug/L	2 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	2 U	2 U	2 U	1 U	1 U	2 U	NA	NA
Methyl acetate	ug/L	5 U	NA	10 U	10 U	10 U [10 U]	10 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U	NA	NA
Methyl tert-butyl ether	ug/L	5 U	NA	0.5 J	1 J	5 UJ [5 UJ]	2 J	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA
Methylcyclohexane	ug/L	1 U	NA	20 U	20 U	20 U [20 U]	20 U	20 U	1 U	1 U	1 UJ	20 U	20 U	1 U	NA	NA
Methylene Chloride	ug/L	5 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-51 09/19/03	RFI-83/84-51 10/14/03	RFI-84-03D 07/29/05	RFI-84-03I 07/29/05	RFI-84-03S 07/29/05	RFI-84-04D 07/28/05	RFI-84-04I 07/28/05	RFI-84-05 10/02/01	RFI-84-05 12/17/02	RFI-84-05 03/24/03	RFI-84-05 02/25/05	RFI-84-05 06/08/05	RFI-84-06R 04/02/03	RFI-84-06R 04/03/03	RFI-84-06R 02/25/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	NA	1 U	1 U	0.5 J [0.5 J]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	NA	0.6 J	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	NA	NA
trans-1,2-Dichloroethene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
trans-1,3-Dichloropropene	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	NA	1 U	1 U	1 J [1 J]	1 U	1 U	3.5	3.9	2.4	9	13	1 U	NA	NA
Trichlorofluoromethane	ug/L	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
Vinyl Chloride	ug/L	1 U	NA	2	5	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA
SVOC																
1,1'-Biphenyl	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2,4,5-Trichlorophenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2,4,6-Trichlorophenol	ug/L	NA	4 U [4 U]	NA	NA	NA	NA	NA	4.5 U	NA	NA	NA	NA	NA	4 U [4 U]	NA
2,4-Dichlorophenol	ug/L	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	10 U [10 U]	NA
2,4-Dimethylphenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2,4-Dinitrophenol	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
2,4-Dinitrotoluene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2,6-Dinitrotoluene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2-Chloronaphthalene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2-Chlorophenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2-Methylnaphthalene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2-Methylphenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
2-Nitroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
2-Nitrophenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
3&4-Methylphenol	ug/L	NA	10 UJ [10 UJ]	NA	NA	NA	NA	NA	11 UJ	NA	NA	NA	NA	NA	10 UJ [10 UJ]	NA
3,3'-Dichlorobenzidine	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
4-Bromophenyl-phenylether	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
4-Chloro-3-Methylphenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
4-Chloroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 UJ [20 UJ]	NA
4-Chlorophenyl-phenylether	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
4-Nitroaniline	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
4-Nitrophenol	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 U [20 U]	NA
Acenaphthene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Acenaphthylene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Acetophenone	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Anthracene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Atrazine	ug/L	NA	5 UJ [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Benzaldehyde	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 UJ [5 UJ]	NA
Benzo(a)anthracene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA	NA	1 U [1 U]	NA
Benzo(a)pyrene	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	2 U [2 U]	NA
Benzo(b)fluoranthene	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	2 U [2 U]	NA
Benzo(g,h,i)perylene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Benzo(k)fluoranthene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
bis(2-Chloroethoxy)methane	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
bis(2-Chloroethyl)ether	ug/L	NA	1.5 U [1.5 U]	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA	NA	1.5 U [1.5 U]	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Butylbenzylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Caprolactam	ug/L	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	10 U [10 U]	NA
Carbazole	ug/L	NA	10 U [10 U]	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	10 U [10 U]	NA
Chrysene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Dibenzo(a,h)anthracene	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	2 U [2 U]	NA
Dibenzofuran	ug/L	NA	4 U [4 U]	NA	NA	NA	NA	NA	4.5 U	NA	NA	NA	NA	NA	4 U [4 U]	NA
Diethylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-51 09/19/03	RFI-83/84-51 10/14/03	RFI-84-03D 07/29/05	RFI-84-03I 07/29/05	RFI-84-03S 07/29/05	RFI-84-04D 07/28/05	RFI-84-04I 07/28/05	RFI-84-05 10/02/01	RFI-84-05 12/17/02	RFI-84-05 03/24/03	RFI-84-05 02/25/05	RFI-84-05 06/08/05	RFI-84-06R 04/02/03	RFI-84-06R 04/03/03	RFI-84-06R 02/25/05
Dimethylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Di-n-Butylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Di-n-Octylphthalate	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Fluoranthene	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	2 U [2 U]	NA
Fluorene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Hexachlorobenzene	ug/L	NA	1 U [1 U]	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA	NA	1 U [1 U]	NA
Hexachlorobutadiene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Hexachlorocyclopentadiene	ug/L	NA	5 UJ [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Hexachloroethane	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	2 U [2 U]	NA
Isophorone	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Methylphenols, Total	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Naphthalene	ug/L	NA	1.34 J [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Nitrobenzene	ug/L	NA	2 U [2 U]	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA	NA	2 U [2 U]	NA
N-Nitroso-di-n-propylamine	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
N-Nitrosodiphenylamine	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Pentachlorophenol	ug/L	NA	20 U [20 U]	NA	NA	NA	NA	NA	22 U	NA	NA	NA	NA	NA	20 UJ [20 U]	NA
Phenanthrene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
Phenol	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [15.8]	NA
Pyrene	ug/L	NA	5 U [5 U]	NA	NA	NA	NA	NA	5.6 U	NA	NA	NA	NA	NA	5 U [5 U]	NA
PCB																
Aroclor-1016	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1221	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1232	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1242	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1248	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1254	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1260	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Total PCBs (Dissolved)	ug/L	0.1 U	NA	NA	NA	NA	NA	NA	0.11 U	NA	NA	NA	NA	0.11 U	NA	NA
Inorganic																
Antimony	ug/L	2.2 J	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	0.59 J	NA
Arsenic	ug/L	110 J	NA	NA	NA	NA	NA	NA	NA	1.7	NA	NA	NA	NA	3.5 J	NA
Barium	ug/L	400	NA	NA	NA	NA	NA	NA	NA	110 J	NA	NA	NA	NA	70	NA
Beryllium	ug/L	140 J	NA	NA	NA	NA	NA	NA	NA	0.46 J	NA	NA	NA	NA	0.4 U	NA
Cadmium	ug/L	2.7 J	NA	NA	NA	NA	NA	NA	NA	0.37 J	NA	NA	NA	NA	0.049 J	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	16	NA	NA	NA	NA	NA	NA	NA	2.7	NA	NA	NA	NA	2.8	NA
Cobalt	ug/L	11 J	NA	NA	NA	NA	NA	NA	NA	1.8 J	NA	NA	NA	NA	1.8	NA
Copper	ug/L	31 J	NA	NA	NA	NA	NA	NA	NA	4.6 J	NA	NA	NA	NA	13	NA
Cyanide (total)	ug/L	5 U	NA	NA	NA	NA	NA	NA	1.1 J	5 U	NA	NA	NA	NA	61	62
Lead	ug/L	8.1	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA	NA	NA	NA	0.94	NA
Manganese	ug/L	360 J	NA	NA	NA	NA	NA	NA	NA	410 J	NA	NA	NA	NA	51 J	NA
Mercury	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-83/84-51 09/19/03	RFI-83/84-51 10/14/03	RFI-84-03D 07/29/05	RFI-84-03I 07/29/05	RFI-84-03S 07/29/05	RFI-84-04D 07/28/05	RFI-84-04I 07/28/05	RFI-84-05 10/02/01	RFI-84-05 12/17/02	RFI-84-05 03/24/03	RFI-84-05 02/25/05	RFI-84-05 06/08/05	RFI-84-06R 04/02/03	RFI-84-06R 04/03/03	RFI-84-06R 02/25/05
Nickel	ug/L	42 J	NA	NA	NA	NA	NA	NA	NA	15 J	NA	NA	NA	NA	9.2	NA
Selenium	ug/L	3 J	NA	NA	NA	NA	NA	NA	NA	1.6 U	NA	NA	NA	NA	2.9 J	NA
Silver	ug/L	1.9 J	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	0.4 U	NA
Thallium	ug/L	1 J	NA	NA	NA	NA	NA	NA	NA	0.065 J	NA	NA	NA	NA	0.048 J	NA
Vanadium	ug/L	10 J	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	4	NA
Zinc	ug/L	71 J	NA	NA	NA	NA	NA	NA	NA	21 J	NA	NA	NA	NA	20	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	1.4 J	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	0.94 J	NA	NA
Arsenic (Dissolved)	ug/L	97 J	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	3	NA	NA
Barium (Dissolved)	ug/L	300	NA	NA	NA	NA	NA	NA	120	NA	NA	NA	NA	58	NA	NA
Beryllium (Dissolved)	ug/L	27 J	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.4 U	NA	NA
Cadmium (Dissolved)	ug/L	1.6 J	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.09 J	NA	NA
Chromium Total (Dissolved)	ug/L	2.5 J	NA	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	6.6	NA	NA
Cobalt (Dissolved)	ug/L	5 J	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	1	NA	NA
Copper (Dissolved)	ug/L	11 J	NA	NA	NA	NA	NA	NA	3.9 U	NA	NA	NA	NA	13	NA	NA
Cyanide (dissolved)	ug/L	5 U	NA	NA	NA	NA	NA	NA	0.92 J	NA	NA	NA	NA	71	NA	58
Lead (Dissolved)	ug/L	0.52 J	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.17 J	NA	NA
Manganese (Dissolved)	ug/L	180 J	NA	NA	NA	NA	NA	NA	340	NA	NA	NA	NA	50	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	24 J	NA	NA	NA	NA	NA	NA	22	NA	NA	NA	NA	7.8	NA	NA
Selenium (Dissolved)	ug/L	1.9	NA	NA	NA	NA	NA	NA	42	NA	NA	NA	NA	4	NA	NA
Silver (Dissolved)	ug/L	1.4 J	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	0.24 J	NA	NA
Thallium (Dissolved)	ug/L	0.6 J	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.17 J	NA	NA
Vanadium (Dissolved)	ug/L	0.8 UJ	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	1.6	NA	NA
Zinc (Dissolved)	ug/L	40 J	NA	NA	NA	NA	NA	NA	7.4	NA	NA	NA	NA	9.5	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-06R 07/22/05	RFI-84-06R 12/08/05	RFI-84-06R 11/01/06	RFI-84-06R 04/24/07	RFI-84-06R 06/26/07	RFI-84-06R 10/26/07	RFI-84-06R 03/17/08	RFI-84-06R 06/17/08	RFI-84-06R 09/10/08	RFI-84-06R 12/03/08	RFI-84-06R 10/19/10	RFI-84-06R 10/21/11	RFI-84-06R 11/07/12	RFI-84-06R 06/05/13	RFI-84-06RD 07/21/05
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	30 UJ	30 U	30 U	30 U	30 U	30 U	NA	NA	NA	NA	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	0.4 J	0.8 J	0.7 J	0.5 J	0.7 J	0.8 J	0.7 J	1 U	NA	NA	NA	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	5 U	NA	NA	NA	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	30 U	NA	NA	NA	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	NA	NA	NA	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	NA	NA	NA	1 U
Acetone	ug/L	30 U	30 U	20 U	10 J	4 J	20 U	4 J	20 U	20 U	20 UJ	50 U	NA	NA	NA	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	3	5	7	1	6	4	2	2	2	NA	NA	NA	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U	NA	NA	NA	2 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	5 U	NA	NA	NA	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Cyclohexane	ug/L	1 UJ	1 U	1 UJ	1 UJ	2 J	1 U	1 U	1 U	1 UJ	1 U	NA	NA	NA	NA	1 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	R	1 U	1 U	1 UJ	1 UJ	1 U	5 U	NA	NA	NA	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	0.3 J	0.4 J	0.8 J	0.2 J	0.3 J	0.4 J	0.3 J	0.3 J	5 U	NA	NA	NA	1 U
m&p-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	NA	NA	NA	1 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	10 U
Methyl tert-butyl ether	ug/L	0.3 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	5 U
Methylcyclohexane	ug/L	20 U	20 U	20 U	0.3 J	0.7 J	20 U	20 UJ	0.3 J	0.2 J	0.3 J	NA	NA	NA	NA	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-06R 07/22/05	RFI-84-06R 12/08/05	RFI-84-06R 11/01/06	RFI-84-06R 04/24/07	RFI-84-06R 06/26/07	RFI-84-06R 10/26/07	RFI-84-06R 03/17/08	RFI-84-06R 06/17/08	RFI-84-06R 09/10/08	RFI-84-06R 12/03/08	RFI-84-06R 10/19/10	RFI-84-06R 10/21/11	RFI-84-06R 11/07/12	RFI-84-06R 06/05/13	RFI-84-06RD 07/21/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-06R 07/22/05	RFI-84-06R 12/08/05	RFI-84-06R 11/01/06	RFI-84-06R 04/24/07	RFI-84-06R 06/26/07	RFI-84-06R 10/26/07	RFI-84-06R 03/17/08	RFI-84-06R 06/17/08	RFI-84-06R 09/10/08	RFI-84-06R 12/03/08	RFI-84-06R 10/19/10	RFI-84-06R 10/21/11	RFI-84-06R 11/07/12	RFI-84-06R 06/05/13	RFI-84-06RD 07/21/05
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88 [86]	68	NA	96	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U [0.5 U]	0.5 U	0.2 U [0.2 U]	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	1.017	1.475	1.767	0.911	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	92.8	145.1 -	1.2	140.5 -	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	8.46	8.19	8.18	8.32	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	30	60	65	35	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	7.86	17.44	20.94	10.63	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	14.9	4.56	2.16	9.66	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	690	520	180	110	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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VOC															
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	NA	NA	NA	NA	300 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	5 U	NA	NA	NA	20 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	10 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	30 U	NA	NA	NA	300 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	NA	NA	NA	500 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	NA	NA	NA	10 UJ
Acetone	ug/L	30 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 UJ	50 U	NA	NA	NA	200 J
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	1,440
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U	NA	NA	NA	20 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	50 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	10 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	5 U	NA	NA	NA	10 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
cis-1,3-Dichloropropene	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Cyclohexane	ug/L	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	NA	NA	NA	NA	70 J
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	10 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	5 U	NA	NA	NA	10 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	NA	NA	NA	10 U
m&p-Xylene	ug/L	1 U	1 U	1 U	0.1 J	0.1 J	1 U	1 U	1 U	1 U	2 U	NA	NA	NA	10 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	100 UJ
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	50 U
Methylcyclohexane	ug/L	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	NA	NA	NA	NA	6 J
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	NA	NA	50 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

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tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	10 U
SVOC															
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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RACER Trust Buick City Site - Flint, Michigan

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB															
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved															
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic															
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U [5 U]	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-06RD 12/08/05	RFI-84-06RD 11/02/06	RFI-84-06RD 04/24/07	RFI-84-06RD 06/27/07	RFI-84-06RD 10/26/07	RFI-84-06RD 03/17/08	RFI-84-06RD 06/17/08	RFI-84-06RD 09/10/08	RFI-84-06RD 12/03/08	RFI-84-06RD 10/19/10	RFI-84-06RD 10/21/11	RFI-84-06RD 11/07/12	RFI-84-06RD 11/13/12	RFI-84-07D 07/28/05
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous															
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved															
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters															
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	4.585	7.286	7.591	3.943	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	8.6 -	NA	16.1	71.6 -	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	7.04	7.45	7.53	7.34	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	30	60	65	35	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	10.94	14.56	21.26	12.67	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	0.02	1.16	4.53	0.74	NA	NA	NA	NA	NA
Field Parameters-Filtered															
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	460	260	180	160	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-07S 07/01/05	RFI-84-08D 07/06/05	RFI-84-08S 07/22/05	RFI-84-09D 07/22/05	RFI-84-09D 12/08/05	RFI-84-09D 11/01/06	RFI-84-09D 04/24/07	RFI-84-09D 06/28/07	RFI-84-09D 10/26/07	RFI-84-09D 03/18/08	RFI-84-09D 06/17/08	RFI-84-09D 09/11/08	RFI-84-09D 12/03/08	RFI-84-09D 10/19/10	RFI-84-09D 10/21/11
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U [30 U]	30 U	30 U	30 U	30 U	30 U [30 U]	30 U	30 U	30 U	30 U	30 U	30 U	NA	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 J	1 U [0.5 J]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	0.8 J [0.9 J]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 UJ	2 U	2 U	2 U	5 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	30 U [30 U]	30 U	30 U	30 U	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U	20 UJ	30 U	20 U
2-Hexanone	ug/L	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4-Methyl-2-pentanone	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Acetone	ug/L	30 U	30 U [30 U]	30 U	30 U	30 U	20 U	9 J [10 J]	20 U	20 U	20 U	20 U	20 U	20 UJ	50 U	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA
Benzene	ug/L	133	2 [2]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Bromodichloromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U
Carbon Disulfide	ug/L	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U
Chloroform	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	1 U	1 U	5 U	1 U
cis-1,2-Dichloroethene	ug/L	2	78 [84]	1 U	4	4	4	3 [3]	4	3	3	3	3	4	3	4
cis-1,3-Dichloropropene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	9	1 U [1 U]	1 UJ	1 UJ	1 U	1 UJ	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	1 UJ	1 U	NA	1 U
Dibromochloromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Dichlorodifluoromethane	ug/L	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 UJ	1 U	1 U	1 U	1 UJ	1 U	5 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA
Ethylbenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Isopropylbenzene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U
m&p-Xylene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	0.1 J	1 U	1 U	1 U	1 U	2 U	2 U
Methyl acetate	ug/L	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	NA	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U [5 U]	5 U	2 J	3 J	3 J	2 J [2 J]	2 J	1 J	1 J	1 J	1 J	1 J	5 U	5 U
Methylcyclohexane	ug/L	20 U	20 U [20 U]	20 U	20 U	20 U	20 U	20 U [20 U]	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
Methylene Chloride	ug/L	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U
o-Xylene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Styrene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-07S 07/01/05	RFI-84-08D 07/06/05	RFI-84-08S 07/22/05	RFI-84-09D 07/22/05	RFI-84-09D 12/08/05	RFI-84-09D 11/01/06	RFI-84-09D 04/24/07	RFI-84-09D 06/28/07	RFI-84-09D 10/26/07	RFI-84-09D 03/18/08	RFI-84-09D 06/17/08	RFI-84-09D 09/11/08	RFI-84-09D 12/03/08	RFI-84-09D 10/19/10	RFI-84-09D 10/21/11
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Tetrachloroethene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA
Toluene	ug/L	0.5 J	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	6 [7]	1 U	1 U	1 U	1 U	0.2 J [0.2 J]	0.2 J	0.1 J	0.1 J	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
Trichloroethene	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	114 [124]	1 U	1 U	3	3	3 [3]	3	3	3	3	2	3 J	2	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-07S 07/01/05	RFI-84-08D 07/06/05	RFI-84-08S 07/22/05	RFI-84-09D 07/22/05	RFI-84-09D 12/08/05	RFI-84-09D 11/01/06	RFI-84-09D 04/24/07	RFI-84-09D 06/28/07	RFI-84-09D 10/26/07	RFI-84-09D 03/18/08	RFI-84-09D 06/17/08	RFI-84-09D 09/11/08	RFI-84-09D 12/03/08	RFI-84-09D 10/19/10	RFI-84-09D 10/21/11
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-07S 07/01/05	RFI-84-08D 07/06/05	RFI-84-08S 07/22/05	RFI-84-09D 07/22/05	RFI-84-09D 12/08/05	RFI-84-09D 11/01/06	RFI-84-09D 04/24/07	RFI-84-09D 06/28/07	RFI-84-09D 10/26/07	RFI-84-09D 03/18/08	RFI-84-09D 06/17/08	RFI-84-09D 09/11/08	RFI-84-09D 12/03/08	RFI-84-09D 10/19/10	RFI-84-09D 10/21/11
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.423	1.917	1.761	1.027	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.5 -	145.7 -	82 -	18.2 -	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.09	7.09	7.08	7.12	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	60	55	34	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.09	16.05	20.41	13.12	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	2.99	1.79	13	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	460	440	400	190	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-09D 11/08/12	RFI-84-09S 07/22/05	RFI-84-09S 12/08/05	RFI-84-09S 11/01/06	RFI-84-09S 04/24/07	RFI-84-09S 06/28/07	RFI-84-09S 10/26/07	RFI-84-09S 03/17/08	RFI-84-09S 06/17/08	RFI-84-09S 09/11/08	RFI-84-09S 12/03/08	RFI-84-09S 10/19/10	RFI-84-09S 10/21/11	RFI-84-09S 11/08/12	RFI-84-10D 07/21/05
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	2	1	0.5 J	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	NA	30 U	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	0.5 J	0.4 J	0.4 J	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	5 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	30 U	20 U	20 U	30 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
4-Methyl-2-pentanone	ug/L	10 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	1 U
Acetone	ug/L	20 U	30 U	30 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 UJ	50 U	20 U	20 U	30 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	0.8 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 UJ	1 U	1 U	5 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	4	1 U	1 U	0.3 J	0.3 J	0.5 J	0.8 J	0.4 J	0.4 J	0.6 J	0.8 J	1 U	1 U	1 U	19
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	NA	1 U	1 U	1 UJ
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	5 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
m&p-Xylene	ug/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	1 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	0.5 J	0.4 J	0.3 J	0.2 J	0.5 J	0.6 J	5 U	5 U	5 U	0.6 J
Methylcyclohexane	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	NA	20 U	20 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
n-Propylbenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-09D 11/08/12	RFI-84-09S 07/22/05	RFI-84-09S 12/08/05	RFI-84-09S 11/01/06	RFI-84-09S 04/24/07	RFI-84-09S 06/28/07	RFI-84-09S 10/26/07	RFI-84-09S 03/17/08	RFI-84-09S 06/17/08	RFI-84-09S 09/11/08	RFI-84-09S 12/03/08	RFI-84-09S 10/19/10	RFI-84-09S 10/21/11	RFI-84-09S 11/08/12	RFI-84-10D 07/21/05
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	0.8 J	0.5 J	0.4 J	0.2 J	1 U	0.1 J	0.2 J	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	4
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-09D 11/08/12	RFI-84-09S 07/22/05	RFI-84-09S 12/08/05	RFI-84-09S 11/01/06	RFI-84-09S 04/24/07	RFI-84-09S 06/28/07	RFI-84-09S 10/26/07	RFI-84-09S 03/17/08	RFI-84-09S 06/17/08	RFI-84-09S 09/11/08	RFI-84-09S 12/03/08	RFI-84-09S 10/19/10	RFI-84-09S 10/21/11	RFI-84-09S 11/08/12	RFI-84-10D 07/21/05
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-09D 11/08/12	RFI-84-09S 07/22/05	RFI-84-09S 12/08/05	RFI-84-09S 11/01/06	RFI-84-09S 04/24/07	RFI-84-09S 06/28/07	RFI-84-09S 10/26/07	RFI-84-09S 03/17/08	RFI-84-09S 06/17/08	RFI-84-09S 09/11/08	RFI-84-09S 12/03/08	RFI-84-09S 10/19/10	RFI-84-09S 10/21/11	RFI-84-09S 11/08/12	RFI-84-10D 07/21/05
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	0.83	1.706	1.334	0.908	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	52.6 -	110.4 -	80.5 -	128.7 -	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	6.74	7.13	6.85	7.04	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	30	60	55	34	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	9.01	16.16	21.08	13.05	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	0.02	1.2	1.92	175	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	220	440	220	80	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-10D 06/05/13	RFI-84-10S 07/22/05	RFI-84-10S 06/05/13	RFI-84-11S 07/28/05	RFI-84-11S 11/01/06	RFI-84-11S 03/17/08	RFI-84-11S 09/11/08	RFI-84-11S 10/19/10	RFI-84-11S 10/21/11	RFI-84-11S 11/09/12	RFI-84-12 12/03/08	RFI-84-12 09/23/09	RFI-84-12 10/19/10	RFI-84-12 10/21/11	RFI-84-12 11/08/12
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
1,1,1-Trichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U [30 U]	30 U	30 U	30 U	30 U	30 U	30 U	NA	30 U	30 U	30 U	30 U	NA	30 U	30 U
1,1,2-Trichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	0.3 J	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U [2 U]	2 U	2 U	2 U	2 U	2 UJ	2 U	5 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
1,3-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	20 U [20 U]	30 U	20 U	30 U	20 U	20 U	20 U	30 U	20 U	20 U	20 UJ	20 U	30 U	20 U	20 U
2-Hexanone	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA	NA
4-Methyl-2-pentanone	ug/L	10 U [10 U]	1 U	10 U	1 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U
Acetone	ug/L	20 U [20 U]	30 U	20 U	30 UJ	20 U	20 U	20 U	50 U	20 U	20 U	20 UJ	20 U	50 U	20 U	20 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2 U	NA	NA
Benzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
Bromodichloromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	5 U	2 U	2 U
Carbon Disulfide	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Chloroform	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	21 [21]	1 U	1 U	1 U	0.9 J	0.7 J	0.8 J	3	2	1 U	0.3 J	2	2	1	2
cis-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U [1 U]	1 UJ	1 U	1 UJ	1 UJ	1 U	1 UJ	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U
Dibromochloromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA	NA
Dichlorodifluoromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA
Ethylbenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
Isopropylbenzene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
m&p-Xylene	ug/L	2 U [2 U]	1 U	2 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	1 U	1 U	2 U	2 U	2 U
Methyl acetate	ug/L	10 U [10 U]	10 U	10 U	10 UJ	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	NA	10 U	10 U
Methyl tert-butyl ether	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 J	0.9	5 U	5 U	5 U
Methylcyclohexane	ug/L	20 U [20 U]	20 U	20 U	20 U	20 U	20 UJ	20 U	NA	20 U	20 U	20 U	20 U	NA	20 U	20 U
Methylene Chloride	ug/L	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	5 U [5 U]	NA	5 U	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	5 U	5 U	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
n-Propylbenzene	ug/L	1 U [1 U]	NA	1 U	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U
o-Xylene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
Styrene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-10D 06/05/13	RFI-84-10S 07/22/05	RFI-84-10S 06/05/13	RFI-84-11S 07/28/05	RFI-84-11S 11/01/06	RFI-84-11S 03/17/08	RFI-84-11S 09/11/08	RFI-84-11S 10/19/10	RFI-84-11S 10/21/11	RFI-84-11S 11/09/12	RFI-84-12 12/03/08	RFI-84-12 09/23/09	RFI-84-12 10/19/10	RFI-84-12 10/21/11	RFI-84-12 11/08/12
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
Tetrachloroethene	ug/L	1 U [1 U]	1 U	1 U	0.5 J	1 U	0.6 J	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	90 U	NA	NA	NA	NA	90 U	NA	NA
Toluene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	0.2	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA
Trichloroethene	ug/L	1 U [1 U]	1 U	1 U	0.8 J	2	1	2	2	1	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	15 [19]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 J	2	1 U	1 U	1 U
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-10D 06/05/13	RFI-84-10S 07/22/05	RFI-84-10S 06/05/13	RFI-84-11S 07/28/05	RFI-84-11S 11/01/06	RFI-84-11S 03/17/08	RFI-84-11S 09/11/08	RFI-84-11S 10/19/10	RFI-84-11S 10/21/11	RFI-84-11S 11/09/12	RFI-84-12 12/03/08	RFI-84-12 09/23/09	RFI-84-12 10/19/10	RFI-84-12 10/21/11	RFI-84-12 11/08/12
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	19 [17]	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	1 U [1 U]	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5 U [5 U]	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U [0.2 U]	NA	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-84-10D 06/05/13	RFI-84-10S 07/22/05	RFI-84-10S 06/05/13	RFI-84-11S 07/28/05	RFI-84-11S 11/01/06	RFI-84-11S 03/17/08	RFI-84-11S 09/11/08	RFI-84-11S 10/19/10	RFI-84-11S 10/21/11	RFI-84-11S 11/09/12	RFI-84-12 12/03/08	RFI-84-12 09/23/09	RFI-84-12 10/19/10	RFI-84-12 10/21/11	RFI-84-12 11/08/12
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U
Silver	ug/L	0.5 U [0.5 U]	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	0.809	0.933	NA	NA	NA	0.814	1.258	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	58.2	30.9	NA	NA	NA	70.2 -	71.6 -	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	7.32	6.81	NA	NA	NA	7.21	6.9	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	30	60	NA	NA	NA	34	68	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	6.8	23.44	NA	NA	NA	12.28	17.61	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	0.86	0.87	NA	NA	NA	9.37	7.99	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	1,540	110	NA	NA	NA	830	330	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-85-02R 12/13/01	RFI-85-02R 06/14/02	RFI-85-03 09/26/01	RFI-85-03 06/13/02	RFI-85-04R 02/28/02	RFI-85-04R 06/12/02	RFI-85-05 10/18/01	RFI-85-06 09/24/01	RFI-85-06 06/12/02	RFI-85-06 04/02/03	RFI-85-07 11/19/01	RFI-85-07 06/12/02	RFI-85-07 04/02/03	RFI-85-08 12/18/02	RFI-86-01 09/20/01	RFI-86-01R 06/25/02
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	NA	1 UJ	NA	1 U	2.1	2.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	0.62 J	1 U	0.57 J	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	NA	5 U	NA	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	NA	25 U	NA	25 U	25 U	25 U	25 U	25 U	3 J	25 U	25 U	25 U	25 UJ
2-Hexanone	ug/L	50 U	50 U	50 U	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	25 U	25 U	25 U	NA	25 U	NA	25 U	25 U	25 U	25 U	25 U	4.6 J	25 U	1.5 J	25 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1.1	1.2	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	0.95 J	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 U	1 U	1 U	NA	1 UJ	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1.6	NA	1 U	NA	1 U	0.56 J	1 U	1 U	1 U	3.5	1.4	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
cis-1,2-Dichloroethene	ug/L	0.65 J	1 U	1 U	NA	4.8	NA	5.3 J	1.7	4.9	1.7	0.64 J	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	5 U	NA	5 UJ	NA	5 U	5 U	5 U	5 U	14	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	25	5.9	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	NA	2 U	NA	2 U	2 U	2 U	2 U	74	74	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	NA	5 UJ	NA	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	6.2	6.5	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 UJ	5 U	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	2.3	3.9	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-85-02R 12/13/01	RFI-85-02R 06/14/02	RFI-85-03 09/26/01	RFI-85-03 06/13/02	RFI-85-04R 02/28/02	RFI-85-04R 06/12/02	RFI-85-05 10/18/01	RFI-85-06 09/24/01	RFI-85-06 06/12/02	RFI-85-06 04/02/03	RFI-85-07 11/19/01	RFI-85-07 06/12/02	RFI-85-07 04/02/03	RFI-85-08 12/18/02	RFI-86-01 09/20/01	RFI-86-01R 06/25/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1.8	1.4	1.3	22	5.2	14	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	2.7 J	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	36	1 UJ	0.63 J	NA	1 U	NA	1 U	45	93	53	7.7	6.9	3.1	0.7 J	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	NA	1 U	NA	1 U	1 U	1 U	1 U	0.67 J	1 U	1 U	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2,4,5-Trichlorophenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2,4,6-Trichlorophenol	ug/L	4 U	NA	4.3 U	NA	4 U	NA	4 U	4.3 U	NA	NA	4 U	NA	NA	4.8 U	4.4 U	NA
2,4-Dichlorophenol	ug/L	10 U	NA	11 U	NA	10 U	NA	10 U	11 U	NA	NA	10 U	NA	NA	12 U	11 U	NA
2,4-Dimethylphenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2,4-Dinitrophenol	ug/L	20 U	NA	21 U	NA	20 U	NA	20 U	22 UJ	NA	NA	20 U	NA	NA	24 U	22 U	NA
2,4-Dinitrotoluene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2,6-Dinitrotoluene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2-Chloronaphthalene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2-Chlorophenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2-Methylnaphthalene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2-Methylphenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
2-Nitroaniline	ug/L	20 U	NA	21 U	NA	20 U	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 U	22 U	NA
2-Nitrophenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
3&4-Methylphenol	ug/L	10 UJ	NA	11 UJ	NA	10 UJ	NA	10 UJ	11 UJ	NA	NA	10 UJ	NA	NA	12 UJ	11 UJ	NA
3,3'-Dichlorobenzidine	ug/L	20 U	NA	21 U	NA	20 U	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 U	22 U	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	21 U	NA	20 U	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 U	22 U	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	21 U	NA	20 UJ	NA	20 U	22 UJ	NA	NA	20 U	NA	NA	24 UJ	22 U	NA
4-Bromophenyl-phenylether	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
4-Chloro-3-Methylphenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
4-Chloroaniline	ug/L	20 U	NA	21 U	NA	20 U	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 U	22 U	NA
4-Chlorophenyl-phenylether	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	R	NA
4-Nitroaniline	ug/L	20 U	NA	21 U	NA	20 UJ	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 UJ	22 U	NA
4-Nitrophenol	ug/L	20 U	NA	21 U	NA	20 U	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 U	22 U	NA
Acenaphthene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Acenaphthylene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Acetophenone	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Anthracene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Atrazine	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 UJ	5.6 U	NA
Benzaldehyde	ug/L	5 UJ	NA	5.3 U	NA	5 UJ	NA	5 UJ	5.4 UJ	NA	NA	5 U	NA	NA	6 UJ	5.6 U	NA
Benzo(a)anthracene	ug/L	1 U	NA	1.1 U	NA	1 U	NA	1 U	1.1 U	NA	NA	1 U	NA	NA	1.2 U	1.1 U	NA
Benzo(a)pyrene	ug/L	2 U	NA	2.1 U	NA	2 U	NA	2 U	2.2 U	NA	NA	2 U	NA	NA	2.4 U	2.2 U	NA
Benzo(b)fluoranthene	ug/L	2 U	NA	2.1 U	NA	2 U	NA	2 U	2.2 U	NA	NA	2 U	NA	NA	2.4 U	2.2 U	NA
Benzo(g,h,i)perylene	ug/L	5 UJ	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 UJ	NA	NA	6 U	5.6 U	NA
Benzo(k)fluoranthene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
bis(2-Chloroethyl)ether	ug/L	1 U	NA	1.1 U	NA	1 U	NA	1 U	1.1 U	NA	NA	1 U	NA	NA	1.8 U	1.1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	NA	1.04 J	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Butylbenzylphthalate	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Caprolactam	ug/L	10 UJ	NA	11 U	NA	10 U	NA	10 U	11 U	NA	NA	10 U	NA	NA	12 U	11 U	NA
Carbazole	ug/L	10 U	NA	11 U	NA	10 U	NA	10 U	11 U	NA	NA	10 U	NA	NA	12 UJ	11 U	NA
Chrysene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Dibenzo(a,h)anthracene	ug/L	2 U	NA	2.1 U	NA	2 U	NA	2 U	2.2 U	NA	NA	2 U	NA	NA	2.4 U	2.2 U	NA
Dibenzofuran	ug/L	4 U	NA	4.3 U	NA	4 U	NA	4 U	4.3 U	NA	NA	4 U	NA	NA	4.8 U	4.4 U	NA
Diethylphthalate	ug/L	5 U	NA	5.3 U	NA	2.02 J	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-85-02R 12/13/01	RFI-85-02R 06/14/02	RFI-85-03 09/26/01	RFI-85-03 06/13/02	RFI-85-04R 02/28/02	RFI-85-04R 06/12/02	RFI-85-05 10/18/01	RFI-85-06 09/24/01	RFI-85-06 06/12/02	RFI-85-06 04/02/03	RFI-85-07 11/19/01	RFI-85-07 06/12/02	RFI-85-07 04/02/03	RFI-85-08 12/18/02	RFI-86-01 09/20/01	RFI-86-01R 06/25/02
Dimethylphthalate	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Di-n-Butylphthalate	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Di-n-Octylphthalate	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Fluoranthene	ug/L	2 U	NA	2.1 U	NA	2 U	NA	2 U	2.2 U	NA	NA	2 U	NA	NA	2.4 U	2.2 U	NA
Fluorene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Hexachlorobenzene	ug/L	1 U	NA	1.1 U	NA	1 U	NA	1 U	1.1 U	NA	NA	1 U	NA	NA	1.2 U	1.1 U	NA
Hexachlorobutadiene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Hexachlorocyclopentadiene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Hexachloroethane	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	2 U	NA	2.1 U	NA	2 U	NA	2 U	2.2 U	NA	NA	2 UJ	NA	NA	2.4 U	2.2 U	NA
Isophorone	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Methylphenols, Total	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Naphthalene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Nitrobenzene	ug/L	2 U	NA	2.1 U	NA	2 U	NA	2 U	2.2 U	NA	NA	2 U	NA	NA	2.4 U	2.2 U	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
N-Nitrosodiphenylamine	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Pentachlorophenol	ug/L	20 U	NA	21 U	NA	20 UJ	NA	20 U	22 U	NA	NA	20 U	NA	NA	24 U	22 U	NA
Phenanthrene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Phenol	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
Pyrene	ug/L	5 U	NA	5.3 U	NA	5 U	NA	5 U	5.4 U	NA	NA	5 U	NA	NA	6 U	5.6 U	NA
PCB																	
Aroclor-1016	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.1 U	NA
Aroclor-1221	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.1 U	NA
Aroclor-1232	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.1 U	NA
Aroclor-1242	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.1 U	NA
Aroclor-1248	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.13 J	NA
Aroclor-1254	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.2	NA
Aroclor-1260	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.1 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.11 U	NA	0.1 U	NA	0.11 U	NA	0.11 U	0.11 U	NA	NA	0.11 U	NA	NA	0.11 U	0.33 J	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Total PCBs (Dissolved)	ug/L	0.11 U	NA	0.11 U	NA	0.1 U	NA	0.1 U	0.11 U	NA	NA	0.1 U	NA	NA	0.11 U	0.11 U	NA
Inorganic																	
Antimony	ug/L	1.2 U	1.2 U	NA	1.2 U	NA	1.2 U	NA	NA	NA	NA	1.2 UJ	1.2 U	NA	1.2 U	1.2 U	1.2 U
Arsenic	ug/L	2.1 U	0.67 J	NA	1 U	NA	2.3 J	NA	NA	NA	NA	2.3	1 U	NA	1.6 J	14 J	1.1
Barium	ug/L	220 J	210	NA	720 J	NA	150 J	NA	NA	NA	NA	210 J	170 J	NA	200 J	140 J	16
Beryllium	ug/L	0.2 J	0.4 UJ	NA	0.4 UJ	NA	0.4 UJ	NA	NA	NA	NA	0.4 UJ	0.4 UJ	NA	0.4 UJ	2.8 J	0.4 U
Cadmium	ug/L	0.24 J	0.073 J	NA	0.2	NA	0.067 J	NA	NA	NA	NA	0.065 J	0.2 U	NA	0.23 J	2 J	0.92
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	1.2 J	1.1	NA	3.6	NA	0.68	NA	NA	NA	NA	0.6 U	0.98	NA	2	10	0.89
Cobalt	ug/L	1.1 J	0.33	NA	0.69	NA	0.26	NA	NA	NA	NA	1.8	0.58	NA	0.38 J	17 J	4.8
Copper	ug/L	2 J	1.8 U	NA	4.4	NA	2.2	NA	NA	NA	NA	2.8 U	9.8	NA	2.7 J	14 J	3.9
Cyanide (total)	ug/L	14	13	16	NA	1.7 J	NA	2.2 J	1.5 J	NA	NA	2.1 J	NA	NA	15	5 U	5 U
Lead	ug/L	0.15 J	0.4 U	NA	0.26 J	NA	0.13 J	NA	NA	NA	NA	0.4 U	0.33 J	NA	0.4 UJ	10 J	0.75
Manganese	ug/L	100 J	2 J	NA	5.9 J	NA	160 J	NA	NA	NA	NA	930 J	840 J	NA	14 J	760 J	900
Mercury	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-85-02R 12/13/01	RFI-85-02R 06/14/02	RFI-85-03 09/26/01	RFI-85-03 06/13/02	RFI-85-04R 02/28/02	RFI-85-04R 06/12/02	RFI-85-05 10/18/01	RFI-85-06 09/24/01	RFI-85-06 06/12/02	RFI-85-06 04/02/03	RFI-85-07 11/19/01	RFI-85-07 06/12/02	RFI-85-07 04/02/03	RFI-85-08 12/18/02	RFI-86-01 09/20/01	RFI-86-01R 06/25/02
Nickel	ug/L	6.2 J	4	NA	9.4	NA	4.1	NA	NA	NA	NA	7.9	4.7	NA	6.4 J	26 J	15
Selenium	ug/L	1.4 U	1.4 U	NA	1.4 U	NA	1.4 U	NA	NA	NA	NA	1.4 U	1.4 U	NA	1.6 U	2.5 J	2.3 J
Silver	ug/L	0.67 J	0.4 U	NA	0.45 J	NA	0.25 J	NA	NA	NA	NA	0.4 UJ	0.4 UJ	NA	0.4 UJ	0.4 U	0.4 UJ
Thallium	ug/L	0.093 J	0.2 U	NA	0.14 J	NA	0.053 J	NA	NA	NA	NA	0.04 J	0.068 J	NA	0.2 UJ	0.35 U	0.2 U
Vanadium	ug/L	0.8 U	0.8 U	NA	0.8 U	NA	0.8 U	NA	NA	NA	NA	0.8 U	0.8 U	NA	0.8 U	14 J	0.22 J
Zinc	ug/L	6 U	6.8	NA	25 J	NA	9 J	NA	NA	NA	NA	7.1 U	11 J	NA	7.9 J	220 J	60
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	1.5 U	NA	1.2 U	NA	1.2 UJ	NA	1.2 U	1.2 U	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	6	NA	1.2 U	NA	10	NA	5	1 U	NA	NA	2.6	NA	NA	NA	6.1	NA
Barium (Dissolved)	ug/L	220	NA	380	NA	180 J	NA	150	35 J	NA	NA	240	NA	NA	NA	56 J	NA
Beryllium (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	7 J	NA	0.4 U	0.4 U	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA
Cadmium (Dissolved)	ug/L	3.4	NA	0.2 U	NA	0.58 J	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	4	NA	0.81 U	NA	8.1 J	NA	6.6	0.6 U	NA	NA	6.4	NA	NA	NA	0.6 U	NA
Cobalt (Dissolved)	ug/L	2.7	NA	1.1	NA	0.61 J	NA	1.9	0.39	NA	NA	1.9	NA	NA	NA	3.8	NA
Copper (Dissolved)	ug/L	6	NA	3 U	NA	4 J	NA	2.8	3.6	NA	NA	3 U	NA	NA	NA	6.8	NA
Cyanide (dissolved)	ug/L	15	NA	13	NA	2.7 J	NA	2.2 J	5 U	NA	NA	5 U	NA	NA	NA	5 U	NA
Lead (Dissolved)	ug/L	0.4 U	NA	0.4 U	NA	0.4 U	NA	0.4 U	0.4 U	NA	NA	0.4 U	NA	NA	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	97	NA	190	NA	190 J	NA	96	52 J	NA	NA	940 J	NA	NA	NA	280	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	5.4	NA	13	NA	8.9 J	NA	7.8	3.4	NA	NA	8.4	NA	NA	NA	6.7	NA
Selenium (Dissolved)	ug/L	2.8 J	NA	80	NA	75 J	NA	2.9 J	1.4 U	NA	NA	1.4 U	NA	NA	NA	1.5 J	NA
Silver (Dissolved)	ug/L	3.1 J	NA	0.4 U	NA	0.85 J	NA	0.4 U	0.4 UJ	NA	NA	0.4 U	NA	NA	NA	0.66 J	NA
Thallium (Dissolved)	ug/L	0.43	NA	0.2 U	NA	0.35 J	NA	0.2 U	0.2 U	NA	NA	0.2 U	NA	NA	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	130	NA	0.8 U	NA	0.8 U	NA	0.8 U	0.8 U	NA	NA	0.82 J	NA	NA	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	19	NA	18	NA	14 J	NA	9.1	6 U	NA	NA	11 U	NA	NA	NA	12	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-01R 04/02/03	RFI-86-01R 10/07/04	RFI-86-01R 10/28/10	RFI-86-01R 10/25/11	RFI-86-01R 11/08/12	RFI-86-01R 11/13/12	RFI-86-03 09/20/01	RFI-86-03 06/17/02	RFI-86-04 09/27/01	RFI-86-04 06/17/02	RFI-86-05 09/27/01	RFI-86-05 06/13/02	RFI-86-05 04/02/03	RFI-86-06D 09/28/01	RFI-86-06D 06/18/02	RFI-86-06D 04/03/03
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	3.4	5.6	1 U	1 U	4.9	4.3	3.6	2	0.75 J	1.4
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	30 U	NA	30 U	NA	30 U [30 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	7.3	7.4	1 U	1 U	0.89 J	1 U	1 U	2.3	0.88 J	1.4
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	2 U	5 U	2 U	NA	2 U [2 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	5 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	0.96 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	30 U	30 U	20 U	NA	20 U [20 U]	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	NA	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	1 U	50 U	10 U	NA	10 U [10 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	25 U	30 UJ	50 U	20 U	NA	80 [70]	25 U	25 U	1.3 J	25 U	0.71 J	25 U	25 U	25 U	2.3 J	25 U
Acrylonitrile	ug/L	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 UJ	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 U	2 UJ	5 U	2 U	NA	2 U [2 U]	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	ug/L	5 U	5 UJ	5 U	5 U	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 UJ	5 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.5
Chloroform	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	5 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	2.7	1 U	1 U	1 U	1 U	1 U	1 U	3.5	0.85 J	1.3
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	1 U	NA	1 U	NA	1 U [1 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	5 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	5 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	1 U	5 U	1 U	NA	1 U [1 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	1 U	2 U	2 U	NA	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	10 U	NA	10 U	NA	10 U [10 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	NA	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	20 U	NA	20 U	NA	20 U [20 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	0.3 J	5 U	5 U	NA	5 U [5 U]	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	5 U	5 U	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	1 U	1 U	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	0.54 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-01R 04/02/03	RFI-86-01R 10/07/04	RFI-86-01R 10/28/10	RFI-86-01R 10/25/11	RFI-86-01R 11/08/12	RFI-86-01R 11/13/12	RFI-86-03 09/20/01	RFI-86-03 06/17/02	RFI-86-04 09/27/01	RFI-86-04 06/17/02	RFI-86-05 09/27/01	RFI-86-05 06/13/02	RFI-86-05 04/02/03	RFI-86-06D 09/28/01	RFI-86-06D 06/18/02	RFI-86-06D 04/03/03
tert-Butylbenzene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 UJ	1 U	1 UJ	0.6 J	0.65 J	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	7.9	5.3	1 U	1 U	6.1	3.9	8.6	21	6.9	23
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	0.67 J	1.2	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	NA	1 U [1 U]	1.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SVOC																	
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 UJ	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	4.2 U	NA	4.1 U	NA	4 U	NA	NA	4.1 U	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	11 U	NA	10 U	NA	10 U	NA	NA	10 U	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	21 UJ	NA	20 UJ	NA	20 U	NA	NA	21 U	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	11 UJ	NA	10 UJ	NA	10 UJ	NA	NA	10 UJ	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 UJ	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	R	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	21 UJ	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 UJ	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	5.3 UJ	NA	5.1 U	NA	5 U	NA	NA	5.1 UJ	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	1.1 U	NA	1 U	NA	1 U	NA	NA	1 U	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	2 U	NA	2 U	NA	NA	2.1 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	2 U	NA	2 U	NA	NA	2.1 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	1.1 U	NA	1 U	NA	1 U	NA	NA	1 U	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	11 U	NA	10 U	NA	10 U	NA	NA	10 UJ	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	11 U	NA	10 U	NA	10 U	NA	NA	10 UJ	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	2 U	NA	2 U	NA	NA	2.1 U	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	4.2 U	NA	4.1 U	NA	4 U	NA	NA	4.1 U	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA

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Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	2 U	NA	2 U	NA	NA	2.1 U	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	1.1 U	NA	1 U	NA	1 U	NA	NA	1 U	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	2 U	NA	2 U	NA	NA	2.1 U	NA	NA
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	0.874 J	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	2.1 U	NA	2 U	NA	2 U	NA	NA	2.1 U	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	21 U	NA	20 U	NA	20 U	NA	NA	21 U	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	5.3 U	NA	5.1 U	NA	5 U	NA	NA	5.1 U	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA	NA
Inorganic																	
Antimony	ug/L	1.2 U	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	NA	1.2 U	NA	NA
Arsenic	ug/L	1.8	NA	NA	NA	NA	NA	NA	4.1	NA	NA	NA	NA	NA	1.9 U	NA	NA
Barium	ug/L	61	NA	NA	NA	NA	NA	NA	65	NA	NA	NA	NA	NA	150 J	NA	NA
Beryllium	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	NA	0.31 J	NA	NA
Cadmium	ug/L	0.37	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.13 J	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	1.7	NA	NA	NA	NA	NA	NA	0.24 J	NA	NA	NA	NA	NA	0.81	NA	NA
Cobalt	ug/L	4	NA	NA	NA	NA	NA	NA	3.3	NA	NA	NA	NA	NA	1.3 J	NA	NA
Copper	ug/L	5	NA	NA	NA	NA	NA	NA	3.3 U	NA	NA	NA	NA	NA	5.3 J	NA	NA
Cyanide (total)	ug/L	5 U	NA	NA	NA	NA	NA	1.2 J	5 U	1.8 J	NA	2.8 J	NA	NA	5 U	NA	NA
Lead	ug/L	1.3	NA	3 U [3 U]	3 U	3 U	NA	NA	0.5	NA	NA	NA	NA	NA	1.4 J	NA	NA
Manganese	ug/L	470 J	NA	19 [18]	5 U	6 [7]	NA	NA	640 J	NA	NA	NA	NA	NA	53 J	NA	NA
Mercury	ug/L	0.2 U	NA	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA

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Location ID: / Date Collected:	Units	RFI-86-01R 04/02/03	RFI-86-01R 10/07/04	RFI-86-01R 10/28/10	RFI-86-01R 10/25/11	RFI-86-01R 11/08/12	RFI-86-01R 11/13/12	RFI-86-03 09/20/01	RFI-86-03 06/17/02	RFI-86-04 09/27/01	RFI-86-04 06/17/02	RFI-86-05 09/27/01	RFI-86-05 06/13/02	RFI-86-05 04/02/03	RFI-86-06D 09/28/01	RFI-86-06D 06/18/02	RFI-86-06D 04/03/03
Nickel	ug/L	30	NA	NA	NA	NA	NA	NA	11	NA	NA	NA	NA	NA	11 J	NA	NA
Selenium	ug/L	5.4	NA	NA	NA	NA	NA	NA	1.4 U	NA	NA	NA	NA	NA	3.9 J	NA	NA
Silver	ug/L	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	0.4 U	NA	NA
Thallium	ug/L	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	0.2 U	NA	NA
Vanadium	ug/L	0.21 J	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	NA	0.8 U	NA	NA
Zinc	ug/L	220	NA	NA	NA	NA	NA	NA	4.9 J	NA	NA	NA	NA	NA	16 J	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.2 U	NA	2.9 U	NA	1.2 U	NA	NA	1.2 U	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	2.7	NA	2.1 J	NA	1.4 J	NA	NA	1 U	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	150 J	NA	120	NA	620	NA	NA	100	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.22	NA	0.58	NA	NA	0.2 U	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.78	NA	0.69	NA	0.81	NA	NA	0.6 U	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	3.1	NA	0.2 U	NA	1.6	NA	NA	0.85	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.5	NA	9.9	NA	2.3	NA	NA	2.4	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	3.2 J	NA	1.7 J	NA	2.6 J	NA	NA	5 U	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	NA	0.4 U	NA	0.4 U	NA	NA	0.4 U	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	970	NA	39 J	NA	280	NA	NA	38 J	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	12	NA	23	NA	14	NA	NA	6.2	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	1.4 U	NA	3.6 J	NA	2.3 J	NA	NA	3.4 J	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.74 J	NA	0.4 UJ	NA	0.4 U	NA	NA	0.4 U	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	0.8 U	NA	0.8 U	NA	0.8 U	NA	NA	0.8 U	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	6 U	NA	20	NA	23	NA	NA	8.3 J	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-06S 10/02/01	RFI-86-06S 06/17/02	RFI-86-06S 04/03/03	RFI-86-06S 06/05/13	RFI-86-06S 11/01/13	RFI-86-08R 02/21/02	RFI-86-08R 06/20/02	RFI-86-08R 12/18/02	RFI-86-08R 04/03/03	RFI-86-08R 06/05/13	RFI-86-14 06/17/02	RFI-86-15 02/19/02	RFI-86-15 06/20/02	RFI-86-15 04/03/03	RFI-86-16R 09/16/03
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	2.2	0.91 J	1.5	1 U	1 U	6 [4.7]	3.6	5.5	8.4	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	1 U	1 U	1 U	30 U	NA	1 U [1 U]	1 U	1 U	1 U	30 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	2.7	0.71 J	1.1	1 U	1 U	92 D	130 EJ	97	100	12	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	5 U	5 U	5 U	2 U	5 U	5 U [5 U]	5 U	5 U	5 U	2 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	2.2 [1.8]	2.2	1.5	1.6	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	25 U	25 U	25 U	20 U	25 U	3.9 J [3.1 J]	25 U	2.8 J	25 U	20 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	50 U	50 U	50 U	10 U	50 U	50 U [50 U]	50 U	50 U	50 U	10 U	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	25 U	25 U	25 U	20 U	50 U	25 U [25 U]	25 U	25 U	25 U	20 U	25 U	25 U	25 U	25 U	25 U
Acrylonitrile	ug/L	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	7.9 [6.4]	5.7	6	4.6	5	1 U	1 U	1 U	1 U	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	1 U	1 U	1 U	2 U	5 U	1 U [1 U]	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	6	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	1 U	1 U	3.2	1 U	5 U	8,300 D	14,000 D	11,000 D	5,200 D	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/L	1 U	1 U	1 U	1 U	5 U	0.58 J [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	2.6	0.58 J	1.1	1 U	1 U	5.8 [4.6]	5.5	4.4	3.7	3	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	5 U	5 U	5 U	1 U	NA	5 U [5 U]	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	3.3 [2.8]	3.2	3.5	2.1	1	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	5 U	5 U	5 U	1 U	5 U	0.77 J [0.67 J]	0.69 J	0.54 J	5 U	1 U	5 U	5 U	5 U	5 U	5 U
m&p-Xylene	ug/L	2 U	2 U	2 U	2 U	2 U	6.8 [5.7]	6.4	6.5	3.8	3	2 U	2 U	2 U	2 U	2 U
Methyl acetate	ug/L	5 U	5 U	5 U	10 U	NA	5 U [5 U]	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/L	1 U	1 U	1 U	20 U	NA	1 U [1 U]	1 U	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	5 U	5 UJ	5 U	5 U	5 U	3.1 J [2.5 J]	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Naphthalene	ug/L	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	34	NA	NA	NA	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	6.3 [5.3]	5.9	6.4	4.1	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-06S 10/02/01	RFI-86-06S 06/17/02	RFI-86-06S 04/03/03	RFI-86-06S 06/05/13	RFI-86-06S 11/01/13	RFI-86-08R 02/21/02	RFI-86-08R 06/20/02	RFI-86-08R 12/18/02	RFI-86-08R 04/03/03	RFI-86-08R 06/05/13	RFI-86-14 06/17/02	RFI-86-15 02/19/02	RFI-86-15 06/20/02	RFI-86-15 04/03/03	RFI-86-16R 09/16/03
tert-Butylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 UJ	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	20 [16]	11	11	8	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	3.2 [2.5]	15	19	20	8	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	18	9.8	19	5	7	8.3 [6.6]	6	6.2	9.7	2	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	6.3 [5.1]	49	7.7	11	2	1 U	1 U	1 U	1 U	1 U
SVOC																
1,1'-Biphenyl	ug/L	5.6 U	NA	NA	NA	NA	10.5 [9.5]	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4.4 U	NA	NA	NA	NA	4 U [4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	11 U	NA	NA	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5.6 U	NA	NA	NA	NA	2.87 J [2.53 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5.6 U	NA	NA	NA	NA	54.5 [49]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	11 UJ	NA	NA	NA	NA	10 UJ [10 UJ]	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5.6 U	NA	NA	NA	NA	0.56 J [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	1.1 U	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	2.2 U	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2.2 U	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	1.1 U	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	11 U	NA	NA	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	11 U	NA	NA	NA	NA	10 U [10 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2.2 U	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4.4 U	NA	NA	NA	NA	2.19 J [1.96 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-06S 10/02/01	RFI-86-06S 06/17/02	RFI-86-06S 04/03/03	RFI-86-06S 06/05/13	RFI-86-06S 11/01/13	RFI-86-08R 02/21/02	RFI-86-08R 06/20/02	RFI-86-08R 12/18/02	RFI-86-08R 04/03/03	RFI-86-08R 06/05/13	RFI-86-14 06/17/02	RFI-86-15 02/19/02	RFI-86-15 06/20/02	RFI-86-15 04/03/03	RFI-86-16R 09/16/03
Dimethylphthalate	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	2.2 U	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5.6 U	NA	NA	NA	NA	1.97 J [1.75 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	1.1 U	NA	NA	NA	NA	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2.2 U	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5.6 U	NA	NA	NA	NA	37.3 [32.5]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	2.2 U	NA	NA	NA	NA	2 U [2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	22 U	NA	NA	NA	NA	20 U [20 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5.6 U	NA	NA	NA	NA	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																
Aroclor-1016	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	0.11 U	NA	NA	NA	NA	0.1 U [0.1 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	47	41	NA	29	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	260	240 J	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	0.4 U	0.4 UJ	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	0.2 U	0.2 UJ	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	0.8	1.8	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	0.56	0.44 J	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	3.3	3.6 J	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	5 U	NA	NA	NA	NA	2.9 J [5 U]	5 U	5 U	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	0.43	0.83 J	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	250	280 J	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-06S 10/02/01	RFI-86-06S 06/17/02	RFI-86-06S 04/03/03	RFI-86-06S 06/05/13	RFI-86-06S 11/01/13	RFI-86-08R 02/21/02	RFI-86-08R 06/20/02	RFI-86-08R 12/18/02	RFI-86-08R 04/03/03	RFI-86-08R 06/05/13	RFI-86-14 06/17/02	RFI-86-15 02/19/02	RFI-86-15 06/20/02	RFI-86-15 04/03/03	RFI-86-16R 09/16/03
Nickel	ug/L	NA	NA	NA	NA	NA	NA	17	14 J	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	1.4 U	1.6 U	NA	5 U	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	0.4 UJ	0.4 UJ	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	0.14 J	0.14 J	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	1.3	1.5	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	20 UJ	18 J	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	1.2 U	NA	NA	NA	NA	1.2 U [1.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	1 UJ	NA	NA	NA	NA	36 [36]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	140	NA	NA	NA	NA	240 [220]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	9.8 J [8 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	0.62 J [0.59 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	0.6 U	NA	NA	NA	NA	16 [23]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	1.1	NA	NA	NA	NA	0.92 J [0.81]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	1.6 U	NA	NA	NA	NA	4.3 [3.3 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	1.2 J	NA	NA	NA	NA	1.7 J [1 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	0.4 U [0.4 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	3.3	NA	NA	NA	NA	190 [180]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	9.4	NA	NA	NA	NA	19 [19]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	15	NA	NA	NA	NA	4.4 U [1.5 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	0.4 U	NA	NA	NA	NA	0.61 J [0.4 UJ]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	0.2 U	NA	NA	NA	NA	0.25 U [0.23 U]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	0.8 U	NA	NA	NA	NA	4.4 [6.4]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	13	NA	NA	NA	NA	16 [19]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-16R 10/06/04	RFI-86-16R 06/27/07	RFI-86-16R 10/29/07	RFI-86-16R 09/15/08	RFI-86-16R 10/18/10	RFI-86-16R 10/24/11	RFI-86-16R 11/08/12	RFI-94-02R 04/03/03	RFI-94-02R 04/04/03	RFI-94-02R 09/18/03	RFI-94-02R 10/06/04	RFI-94-02R 06/05/13	RFI-94-02R 09/26/13	RFI-94-05 12/17/02	RFI-94-07 12/17/02
VOC																
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	39	33	27	1 U	32	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	30 U	30 U	30 U	NA	30 U	30 U	NA	1 U	1 U	30 U	30 U	30 U	1 U	NA
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	0.81 J	0.8 J	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1	0.89 J	1 J	1 U	1 U	1 U	NA
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	7.5	5.3	2 J	1 U	5	1 U	NA
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	2 U	2 U	2 U	2 U	5 U	2 U	2 U	NA	5 U	5 U	2 U	2 U	2 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 UJ	NA
1,2-Dibromoethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	30 U	20 U	20 U	20 U	30 UJ	20 U	20 U	NA	25 U	25 U	30 U	20 U	20 U	25 U	NA
2-Hexanone	ug/L	50 U	50 U	50 U	50 UJ	50 UJ	50 U	50 U	NA	50 U	50 U	50 UJ	50 U	50 U	50 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ug/L	1 U	10 U	10 U	10 U	50 U	10 U	10 U	NA	50 U	50 U	1 U	10 U	10 U	50 U	NA
Acetone	ug/L	30 U	20 U	20 U	20 U	50 UJ	20 U	20 U	NA	25 U	25 U	30 U	20 U	20 U	25 U	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	0.5 J	1 U	1 U	1 U	NA
Bromobenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
Bromoform	ug/L	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 UJ	1 U	1 U	1 UJ	NA
Bromomethane	ug/L	2 UJ	2 U	2 U	2 U	5 U	2 U	2 U	NA	1 U	1 U	2 UJ	2 U	2 U	1 U	NA
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 UJ	NA
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
Chloroethane	ug/L	1 UJ	1 U	1 U	1 U	5 U	1 U	1 U	NA	1 U	1 U	1 UJ	1 U	1 U	1 U	NA
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	3	2.4	2	1 U	2	1 U	NA
Chloromethane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	5.2	4.5	23	1 U	3	1 U	NA
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
Cyclohexane	ug/L	1 U	1 U	1 U	1 UJ	NA	1 U	1 U	NA	5 U	5 U	1 U	1 U	1 U	5 U	NA
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	5 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 UJ	NA
Dibromomethane	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ug/L	1 U	1 UJ	1 U	1 U	5 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
Diethyl ether	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	5 U	1 U	1 U	NA	5 U	5 U	1 U	1 U	1 U	5 U	NA
m&p-Xylene	ug/L	1 U	1 U	1 U	1 U	2 U	2 U	2 U	NA	2 U	2 U	1 U	2 U	2 U	2 U	NA
Methyl acetate	ug/L	10 UJ	10 U	10 U	10 U	NA	10 U	10 U	NA	5 U	5 U	10 U	10 U	10 U	5 U	NA
Methyl tert-butyl ether	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA
Methylcyclohexane	ug/L	20 U	20 U	20 U	20 U	NA	20 U	20 U	NA	1 U	1 U	20 U	20 U	20 U	1 U	NA
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA
Naphthalene	ug/L	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	5 U	1 U	NA	NA
n-Butylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	ug/L	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA	NA	1 U	1 U	NA	NA
o-Xylene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-16R 10/06/04	RFI-86-16R 06/27/07	RFI-86-16R 10/29/07	RFI-86-16R 09/15/08	RFI-86-16R 10/18/10	RFI-86-16R 10/24/11	RFI-86-16R 11/08/12	RFI-94-02R 04/03/03	RFI-94-02R 04/04/03	RFI-94-02R 09/18/03	RFI-94-02R 10/06/04	RFI-94-02R 06/05/13	RFI-94-02R 09/26/13	RFI-94-05 12/17/02	RFI-94-07 12/17/02
tert-Butylbenzene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
Tetrahydrofuran	ug/L	NA	NA	NA	NA	90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	0.3 J	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	510 D	560 D	950	1 U	1,014 E	0.74 J	NA
Trichlorofluoromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1.1	0.6 J	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
SVOC																
1,1'-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA	NA	NA	4.2 U	4.4 U
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	11 U	11 U
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	21 U	22 U
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	21 U	22 U
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
3&4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	NA	NA	NA	NA	11 UJ	11 UJ
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 UJ	NA	NA	NA	NA	21 U	22 U
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	21 U	22 U
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	21 UJ	22 UJ
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
4-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 UJ	NA	NA	NA	NA	21 U	22 U
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	21 UJ	22 UJ
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 U	NA	NA	NA	NA	21 U	22 U
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 UJ	NA	NA	NA	NA	5.3 UJ	5.5 UJ
Benzo(a)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1.1 U	1.1 U
Benzo(a)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2.1 U	2.2 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2.1 U	2.2 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.5 U	NA	NA	NA	NA	1.6 U	1.6 U
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Butylbenzylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	11 U	11 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	11 UJ	11 UJ
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2.1 U	2.2 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA	NA	NA	NA	4.2 U	4.4 U
Diethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-16R 10/06/04	RFI-86-16R 06/27/07	RFI-86-16R 10/29/07	RFI-86-16R 09/15/08	RFI-86-16R 10/18/10	RFI-86-16R 10/24/11	RFI-86-16R 11/08/12	RFI-94-02R 04/03/03	RFI-94-02R 04/04/03	RFI-94-02R 09/18/03	RFI-94-02R 10/06/04	RFI-94-02R 06/05/13	RFI-94-02R 09/26/13	RFI-94-05 12/17/02	RFI-94-07 12/17/02
Dimethylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2.1 U	2.2 U
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1.1 U	1.1 U
Hexachlorobutadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2.1 U	2.2 U
Isophorone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Methylphenols, Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Nitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2.1 U	2.2 U
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20 UJ	NA	NA	NA	NA	21 U	22 U
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	18.5	NA	NA	NA	NA	5.3 U	5.5 U
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5.3 U	5.5 U
PCB																
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA
Inorganic																
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.2 U	NA	NA	NA	NA	1.2 U	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1.2 J	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	47	NA	NA	NA	NA	45 J	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.8 U	NA	NA	NA	NA	0.4 UJ	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.075 J	NA	NA	NA	NA	0.2 UJ	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.34 J	NA	NA	NA	NA	1.3	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	0.91 J	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.2	NA	NA	NA	NA	2.9 J	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.2 J	NA	NA	NA	NA	5 U	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.28 J	NA	NA	NA	NA	0.86 J	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	290 J	NA	NA	NA	NA	120	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.2 U	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-86-16R 10/06/04	RFI-86-16R 06/27/07	RFI-86-16R 10/29/07	RFI-86-16R 09/15/08	RFI-86-16R 10/18/10	RFI-86-16R 10/24/11	RFI-86-16R 11/08/12	RFI-94-02R 04/03/03	RFI-94-02R 04/04/03	RFI-94-02R 09/18/03	RFI-94-02R 10/06/04	RFI-94-02R 06/05/13	RFI-94-02R 09/26/13	RFI-94-05 12/17/02	RFI-94-07 12/17/02
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	5.6 J	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.6 U	NA	NA	NA	NA	1.6 U	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.4 UJ	NA	NA	NA	NA	0.4 UJ	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	0.15 J	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.35 J	NA	NA	NA	NA	1.1	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	8.9	NA	NA	NA	NA	5.1 J	NA
Miscellaneous																
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
Conductivity Field	mS/cm	NA	NA	NA	0.408	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	52.6 -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	16.49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters-Filtered																
Dissolved Oxygen, Field	ug/L	NA	NA	NA	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-94-07 03/24/03	RFI-94-08 12/16/03	RFI-94-09 12/15/03	RFI-94-09 02/25/05	RFI-94-10 12/15/03	RFI-94-10 10/08/04	RFI-94-10 10/25/11	RFI-94-11 04/07/05	RFI-94-11 12/08/05	RFI-94-11 06/28/07	RFI-94-11 11/02/07	RFI-94-11 03/27/08	RFI-94-11 06/19/08	RFI-94-11 09/12/08	RFI-94-11 12/05/08	RFI-94-11 10/18/10
VOC																	
1,1,1,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,1,1-Trichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	NA	1 U	1 U	30 U	1 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U [30 U]	NA
1,1,2-Trichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1-Dichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,1-Dichloroethene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2,3-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
1,2,3-Trichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,3-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2,4-Trichlorobenzene	ug/L	NA	5 U	5 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	5 U
1,2,4-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,2-Dibromo-3-chloropropane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
1,2-Dibromoethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2-Dichlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2-Dichloroethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,2-Dichloropropane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,3,5-Trimethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
1,3-Dichlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,4-Dichlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
1,4-Dioxane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ug/L	NA	25 U	25 U	30 U	25 U	30 U	20 U	30 U	30 U	20 U	20 U	20 U	20 U	20 U	20 U [20 U]	30 U
2-Hexanone	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 UJ [50 UJ]	50 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
4-Methyl-2-pentanone	ug/L	NA	50 U	50 U	1 U	50 U	1 U	10 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	50 U
Acetone	ug/L	NA	25 U	25 U	30 U	25 U	30 U	20 U	30 UJ	30 U	20 U	20 U	20 U	20 U	20 U	20 UJ [20 UJ]	50 U
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Benzene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromochloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Bromodichloromethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromoform	ug/L	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromomethane	ug/L	NA	1 U	1 U	R	1 U	2 UJ	2 U	R	2 U	2 U	2 U	2 UJ	2 UJ	2 U	2 U [2 U]	5 U
Carbon Disulfide	ug/L	NA	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U
Carbon Tetrachloride	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Chlorobenzene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Chloroethane	ug/L	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U [1 U]	5 U
Chloroform	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Chloromethane	ug/L	NA	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
cis-1,2-Dichloroethene	ug/L	NA	1 U	1 U	1 U	1 U	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
cis-1,3-Dichloropropene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Cyclohexane	ug/L	NA	5 U	5 U	1 UJ	5 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U [1 U]	NA
Dibromochloromethane	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
Dibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Dichlorodifluoromethane	ug/L	NA	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
Diethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Ethylbenzene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
Iodomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Isopropylbenzene	ug/L	NA	5 U	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
m&p-Xylene	ug/L	NA	2 U	2 U	1 U	2 U	1 U	2 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U [1 U]	2 U
Methyl acetate	ug/L	NA	5 U	5 U	10 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]	NA
Methyl tert-butyl ether	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U
Methylcyclohexane	ug/L	NA	1 U	1 U	20 U	1 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U [20 U]	NA
Methylene Chloride	ug/L	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	5 U
n-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
n-Propylbenzene	ug/L	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	1 U
o-Xylene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
p-Isopropyltoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U
sec-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Styrene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ [1 U]	1 U

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Location ID: / Date Collected:	Units	RFI-94-07 03/24/03	RFI-94-08 12/16/03	RFI-94-09 12/15/03	RFI-94-09 02/25/05	RFI-94-10 12/15/03	RFI-94-10 10/08/04	RFI-94-10 10/25/11	RFI-94-11 04/07/05	RFI-94-11 12/08/05	RFI-94-11 06/28/07	RFI-94-11 11/02/07	RFI-94-11 03/27/08	RFI-94-11 06/19/08	RFI-94-11 09/12/08	RFI-94-11 12/05/08	RFI-94-11 10/18/10
tert-Butylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Tetrachloroethene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Tetrahydrofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90 U
Toluene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
trans-1,2-Dichloroethene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
trans-1,3-Dichloropropene	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
trans-1,4-Dichloro-2-butene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Trichloroethene	ug/L	NA	1 U	1 U	1 U	2.5	3	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Trichlorofluoromethane	ug/L	NA	1 U	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Vinyl Chloride	ug/L	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
SVOC																	
1,1'-Biphenyl	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	ug/L	10 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	20 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	5 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	5 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	1.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	2 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-94-07 03/24/03	RFI-94-08 12/16/03	RFI-94-09 12/15/03	RFI-94-09 02/25/05	RFI-94-10 12/15/03	RFI-94-10 10/08/04	RFI-94-10 10/25/11	RFI-94-11 04/07/05	RFI-94-11 12/08/05	RFI-94-11 06/28/07	RFI-94-11 11/02/07	RFI-94-11 03/27/08	RFI-94-11 06/19/08	RFI-94-11 09/12/08	RFI-94-11 12/05/08	RFI-94-11 10/18/10
Dimethylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	2 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-Dissolved																	
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: / Date Collected:	Units	RFI-94-07 03/24/03	RFI-94-08 12/16/03	RFI-94-09 12/15/03	RFI-94-09 02/25/05	RFI-94-10 12/15/03	RFI-94-10 10/08/04	RFI-94-10 10/25/11	RFI-94-11 04/07/05	RFI-94-11 12/08/05	RFI-94-11 06/28/07	RFI-94-11 11/02/07	RFI-94-11 03/27/08	RFI-94-11 06/19/08	RFI-94-11 09/12/08	RFI-94-11 12/05/08	RFI-94-11 10/18/10
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Fluorine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic-Dissolved																	
Antimony (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																	
Conductivity Field	mS/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.11	3.852	4.225	3.411	NA
ORP, Field	millivolts	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9 -	28.5 -	52.2 -	43.6 -	NA
pH Field	s.u.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.85	6.83	6.76	6.48	NA
Temperature, Ambient	deg f	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	65	65	16	NA
Temperature, Field	Deg C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.61	14.37	18.44	12.6	NA
Turbidity (Field)	NTU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24	11.4	3.68	2.91	NA
Field Parameters-Filtered																	
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	260	580	220	110	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: Date Collected:	Units	RFI-94-11 11/09/12	WMU-TW-05 05/23/13	WMU-TW-06 05/23/13	WMU-TW-07 05/23/13
VOC					
1,1,1,2-Tetrachloroethane	ug/L	NA	50 UY	10 UY	5 UY
1,1,1-Trichloroethane	ug/L	1 U	1,690 Y	20 Y	25 Y
1,1,2,2-Tetrachloroethane	ug/L	1 U	50 UY	10 UY	5 UY
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	30 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	1 U	50 UY	10 UY	5 UY
1,1-Dichloroethane	ug/L	1 U	780 Y	560 Y	675 Y
1,1-Dichloroethene	ug/L	1 U	310 Y	50 Y	59 Y
1,2,3-Trichlorobenzene	ug/L	NA	300 UY	50 UY	30 UY
1,2,3-Trichloropropane	ug/L	NA	50 UY	10 UY	5 UY
1,2,3-Trimethylbenzene	ug/L	NA	50 UY	10 UY	5 UY
1,2,4-Trichlorobenzene	ug/L	2 U	300 UY	50 UY	30 UY
1,2,4-Trimethylbenzene	ug/L	NA	50 UY	10 UY	5 UY
1,2-Dibromo-3-chloropropane	ug/L	1 U	300 UY	50 UY	30 UY
1,2-Dibromoethane	ug/L	1 U	50 UY	10 UY	5 UY
1,2-Dichlorobenzene	ug/L	1 U	50 UY	10 UY	5 UY
1,2-Dichloroethane	ug/L	1 U	50 UY	10 UY	5 UY
1,2-Dichloropropane	ug/L	1 U	50 UY	10 UY	5 UY
1,3,5-Trimethylbenzene	ug/L	NA	50 UY	10 UY	5 UY
1,3-Dichlorobenzene	ug/L	1 U	50 UY	10 UY	5 UY
1,4-Dichlorobenzene	ug/L	1 U	50 UY	10 UY	5 UY
1,4-Dioxane	ug/L	NA	44	99	98
2-Butanone	ug/L	20 U	1,300 UY	250 UY	130 UY
2-Hexanone	ug/L	50 U	2,500 UY	500 UY	250 UY
2-Methylnaphthalene	ug/L	NA	300 UY	50 UY	30 UY
4-Methyl-2-pentanone	ug/L	10 U	2,500 UY	500 UY	250 UY
Acetone	ug/L	20 U	2,500 UY	570 Y	590 Y
Acrylonitrile	ug/L	NA	100 UY	20 UY	10 UY
Benzene	ug/L	1 U	50 UY	10 UY	5 UY
Bromobenzene	ug/L	NA	50 UY	10 UY	5 UY
Bromochloromethane	ug/L	NA	50 UY	10 UY	5 UY
Bromodichloromethane	ug/L	1 U	50 UY	10 UY	5 UY
Bromoform	ug/L	1 U	50 UY	10 UY	5 UY
Bromomethane	ug/L	2 U	300 UY	50 UY	30 UY
Carbon Disulfide	ug/L	5 U	300 UY	50 UY	30 UY
Carbon Tetrachloride	ug/L	1 U	50 UY	10 UY	5 UY
Chlorobenzene	ug/L	1 U	50 UY	10 UY	5 UY
Chloroethane	ug/L	1 U	300 UY	130 Y	120 Y
Chloroform	ug/L	1 U	50 UY	10 UY	5 UY
Chloromethane	ug/L	1 U	300 UY	50 UY	30 UY
cis-1,2-Dichloroethene	ug/L	1 U	50 UY	10 UY	6 Y
cis-1,3-Dichloropropene	ug/L	1 U	50 UY	10 UY	5 UY
Cyclohexane	ug/L	1 U	NA	NA	NA
Dibromochloromethane	ug/L	1 U	300 UY	50 UY	30 UY
Dibromomethane	ug/L	NA	300 UY	50 UY	30 UY
Dichlorodifluoromethane	ug/L	1 U	300 UY	50 UY	30 UY
Diethyl ether	ug/L	NA	500 UY	100 UY	50 UY
Ethylbenzene	ug/L	1 U	50 UY	10 UY	5 UY
Hexachloroethane	ug/L	NA	300 UY	50 UY	30 UY
Iodomethane	ug/L	NA	50 UY	10 UY	5 UY
Isopropylbenzene	ug/L	1 U	300 UY	50 UY	30 UY
m&p-Xylene	ug/L	2 U	100 UY	20 UY	10 UY
Methyl acetate	ug/L	10 U	NA	NA	NA
Methyl tert-butyl ether	ug/L	5 U	300 UY	50 UY	30 UY
Methylcyclohexane	ug/L	20 U	NA	NA	NA
Methylene Chloride	ug/L	5 U	300 UY	50 UY	30 UY
Naphthalene	ug/L	5 U	300 UY	50 UY	30 UY
n-Butylbenzene	ug/L	NA	50 UY	10 UY	5 UY
n-Propylbenzene	ug/L	1 U	50 UY	10 UY	5 UY
o-Xylene	ug/L	1 U	50 UY	10 UY	5 UY
p-Isopropyltoluene	ug/L	NA	300 UY	50 UY	30 UY
sec-Butylbenzene	ug/L	NA	50 UY	10 UY	5 UY
Styrene	ug/L	1 U	50 UY	10 UY	5 UY

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: Date Collected:	Units	RFI-94-11 11/09/12	WMU-TW-05 05/23/13	WMU-TW-06 05/23/13	WMU-TW-07 05/23/13
tert-Butylbenzene	ug/L	NA	50 UY	10 UY	5 UY
Tetrachloroethene	ug/L	1 U	50 UY	30 Y	33 Y
Tetrahydrofuran	ug/L	NA	4,500 UY	900 UY	450 UY
Toluene	ug/L	1 U	50 UY	10 UY	5 UY
trans-1,2-Dichloroethene	ug/L	1 U	50 UY	10 UY	5 UY
trans-1,3-Dichloropropene	ug/L	1 U	50 UY	10 UY	5 UY
trans-1,4-Dichloro-2-butene	ug/L	NA	50 UY	10 UY	5 UY
Trichloroethene	ug/L	1 U	50 UY	10 Y	10 Y
Trichlorofluoromethane	ug/L	1 U	50 UY	10 UY	5 UY
Vinyl Chloride	ug/L	1 U	50 UY	10 UY	5 UY
SVOC					
1,1'-Biphenyl	ug/L	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA
1-Methylnaphthalene	ug/L	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA
2-Methylphenol	ug/L	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA
3&4-Methylphenol	ug/L	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	NA	NA	NA	NA
3-Methylphenol	ug/L	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	NA	NA	NA	NA
4-Bromophenyl-phenylether	ug/L	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA
4-Chloroaniline	ug/L	NA	NA	NA	NA
4-Chlorophenyl-phenylether	ug/L	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA
bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA
Butylbenzylphthalate	ug/L	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA
Dibenzo(a,h)anthracene	ug/L	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA
Diethylphthalate	ug/L	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: Date Collected:	Units	RFI-94-11 11/09/12	WMU-TW-05 05/23/13	WMU-TW-06 05/23/13	WMU-TW-07 05/23/13
Dimethylphthalate	ug/L	NA	NA	NA	NA
Di-n-Butylphthalate	ug/L	NA	NA	NA	NA
Di-n-Octylphthalate	ug/L	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	NA	NA
Isophorone	ug/L	NA	NA	NA	NA
Methylphenols, Total	ug/L	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA
Nitrobenzene	ug/L	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/L	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA
PCB					
Aroclor-1016	ug/L	NA	NA	NA	NA
Aroclor-1221	ug/L	NA	NA	NA	NA
Aroclor-1232	ug/L	NA	NA	NA	NA
Aroclor-1242	ug/L	NA	NA	NA	NA
Aroclor-1248	ug/L	NA	NA	NA	NA
Aroclor-1254	ug/L	NA	NA	NA	NA
Aroclor-1260	ug/L	NA	NA	NA	NA
Aroclor-1262	ug/L	NA	NA	NA	NA
Aroclor-1268	ug/L	NA	NA	NA	NA
Total PCBs	ug/L	NA	NA	NA	NA
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA
PCB-Dissolved					
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	NA	NA	NA	NA
Inorganic					
Antimony	ug/L	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA
Chromium Total	ug/L	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA
Cyanide (total)	ug/L	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA

Appendix D. Historical Sitwe-wide Groundwater Sampling Data, 2013 CMI Report
RACER Trust Buick City Site - Flint, Michigan

Location ID: Date Collected:	Units	RFI-94-11 11/09/12	WMU-TW-05 05/23/13	WMU-TW-06 05/23/13	WMU-TW-07 05/23/13
Nickel	ug/L	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA
Miscellaneous					
Fluorine	ug/L	NA	NA	NA	NA
Formaldehyde	ug/L	NA	NA	NA	NA
Total Petroleum Hydrocarbons - extractable (DRO)	ug/L	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C6-C14) GRO	ug/L	NA	NA	NA	NA
Total Solids	mg/kg	NA	NA	NA	NA
Inorganic-Dissolved					
Antimony (Dissolved)	ug/L	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	NA	NA	NA	NA
Barium (Dissolved)	ug/L	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	NA	NA	NA	NA
Copper (Dissolved)	ug/L	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	NA	NA	NA	NA
Lead (Dissolved)	ug/L	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	NA	NA	NA	NA
Silver (Dissolved)	ug/L	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	NA	NA	NA	NA
Vanadium (Dissolved)	ug/L	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	NA	NA	NA	NA
Field Parameters					
Conductivity Field	mS/cm	NA	NA	NA	NA
ORP, Field	millivolts	NA	NA	NA	NA
pH Field	s.u.	NA	NA	NA	NA
Temperature, Ambient	deg f	NA	NA	NA	NA
Temperature, Field	Deg C	NA	NA	NA	NA
Turbidity (Field)	NTU	NA	NA	NA	NA
Field Parameters-Filtered					
Dissolved Oxygen, Field	ug/L	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = Not Analyzed
U = The compound was analyzed for but not detected. The associated value is the compound q
J = Estimated value.
Y = Elevated concentration due to high target concentration.
mS/cm = microSiemends per centimeter
s.u = standard units
Deg F = Degrees Fahrenheit
Deg C = Degrees Celcius
NTU = nephelometric turbidity units

Appendix E

AOI-09-A Impacted Soil Removal Work Plan

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Imagine the result

Revitalizing Auto Communities Environmental Response Trust (RACER)

AOI 09-A Impacted Soil Removal Work Plan

Buick City Site (Formerly General Motors Corporation North American Operations Facility)

Flint, Michigan

October 10, 2012

ARCADIS

Christopher S. Peters, PG
Vice President

Micki M. Maki
Certified Project Manager

AOI 09-A Impacted Soil Removal Work Plan

Buick City Site (Formerly General Motors Corporation North American Operations Facility)

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Date:
October 10, 2012

ARCADIS

Table of Contents

1. Introduction **1**

2. Soil Removal Activities **1**

2.1 Site Preparation 2

2.2 Soil Erosion and Sedimentation Control 2

2.3 Soil Removal 3

2.3.1 Benzo(a)pyrene Soil Removal 3

2.3.2 Lead-impacted Soil Removal 3

2.3.3 Air Monitoring and Dust Suppression 4

2.3.3.1 Wind Direction Monitoring 4

2.3.3.2 Particulate Monitoring 5

2.4 Confirmation Sampling 5

2.4.1 Benzo(a)pyrene-impacted soil sampling 5

2.4.2 Lead-impacted soil sampling 6

2.5 Soil Transport and Disposal Management 7

2.6 Shoring and Dewatering 7

2.7 Site Restoration 8

3. Reporting **8**

4. References **8**

Figures

Figure 1 Site Location Map

Figure 2 Site Plan

Figure 3 Estimated Extents of Benzo(a)pyrene Excavation

Figure 4 Estimate Extents of Lead Excavation

Appendices

Appendix A Standard Operating Procedures and Action Levels

Appendix B Excerpt from Section 2.4.2.2 of the 2002 Michigan Department of Environmental Quality Sampling Strategies and Statistics Training Materials Plan

Appendix C Excerpts from the *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) presented as Appendix C of the March 30, 2001 *RCRA Facility Investigation Work Plan*

1. Introduction

This AOI 09-A Impacted Soil Removal Work Plan (work plan) was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan. The objective of this work plan is to detail the approach that will be used to remove lead and benzo(a)pyrene impacted soils from the CSX property adjacent to AOI 09-A located in the Southend of the Site, Figure 1.

This work plan was developed in accordance with the *Corrective Measures Implementation (CMI) Work Plan (ARCADIS, 2010)* and the *U.S EPA Final Decision and Response to Comments for Soil and Groundwater Cleanup at The Southend of the Former General Motors Corporation North American Operations (Otherwise known as Buick City) (U.S.EPA, 2010)[the Final Decision].*

2. Soil Removal Activities

In the Final Decision the selected remedy to address the off-Site impacted soils is excavation and off-Site disposal. Off-Site impacted soils with lead concentrations above 900 milligrams per kilogram (mg/kg) (non-residential direct contact criteria) and benzo(a)pyrene concentrations above 8 mg/kg (non-residential direct contact criteria) will be excavated. The approximate extent of soil impacts (shown on Figure 2) is based on data collected during the RFI as well as investigation activities completed in August of 2010. Soils will be disposed of at an off-Site disposal facility consistent with state requirements.

The impacted soils are present on both RACER and CSX property; however, only the impacted soils on the CSX property will be excavated. An access agreement between RACER and CSX was fully executed on April 16, 2012. All provisions outlined in the access agreement will be followed during this excavation activity.

Figure 2 shows the route through the Site truck traffic will be using to access the work area on CSX property.

2.1 Site Preparation

Prior to beginning soil removal activities the following Site Preparation activities will be performed:

- A professional surveyor will stake and mark out the extent of each excavation and stake the historical soil boring locations, to be used as reference points. The estimated extent of offsite benzo(a)pyrene soil excavation is shown on Figure 3 and the lead soil excavation is shown on Figure 4.

- Work zones and staging areas for vehicles and equipment will be designated accordingly.

- Removal of existing perimeter fence as necessary to complete this scope of work.

- Construction safety fence or appropriate barricades will be installed just outside the excavation boundaries to eliminate a fall hazard and keep bystanders out of the work zones.

- A designated loading area will be established and appropriate measures will be taken to ensure impacted soil does not come into contact will non-impacted soils. Excavated soils will be directly loaded into trucks/roll-off boxes over a pad covered with poly plastic sheeting (or similar) to protect the underlying ground.

- Proper utility clearance procedures and one call activities will be completed.

2.2 Soil Erosion and Sedimentation Control

As the area of land to be excavated is less than 1 acre; a Sediment Erosion and Sedimentation Control Plan (SESC) Plan is not required. However, removal activities will be completed in a way that minimizes the potential for erosion and transport of soil from the removal areas to the adjacent surface-water bodies or nearby catch basins. During the soil excavation, the contractor will excavate the impacted soil and place the soil directly into a truck or staged roll-off, reducing or eliminating the need for stockpiling. However in the event that direct loading of impacted soil and unloading of fill soil cannot be achieved, soil stockpiles will be contained on plastic sheeting, and covered with plastic sheeting to prevent erosion. SESC control measure shall be removed upon completion of surface restoration and 90% vegetation coverage, where appropriate.

2.3 Soil Removal

The benzo(a)pyrene soil removal will be performed prior to the lead soil removal. In the event that additional excavation is required, excavation equipment shall be properly decontaminated prior to exiting either soil removal area.

2.3.1 Benzo(a)pyrene Soil Removal

During the benzo(a)pyrene delineation activities several additional polynuclear aromatic hydrocarbons (PNAs) were also detected at concentrations exceeding non-residential criteria. Although several PNAs have been detected above criteria in this area, it will continue to be referred to as the benzo(a)pyrene soil removal area, for consistency's sake. The PNA impacted soils will be excavated using heavy equipment and transported offsite to an approved disposal facility.

The estimated initial extent of the benzo(a)pyrene removal area is shown on Figure 3. The estimated area to be excavated is approximately 22 feet wide by 28 feet long by 2.5 feet deep. The area is bounded by the RACER/CSX property boundary to the west and by soil borings SB-09-35, SB-09-03, SB-09-33, and SB-09-34 to the south and east. The northern extent of impact has not been fully delineated. The estimated volume of soil to be removed is approximately 60 cubic yards. Any surface concrete / asphalt and/or debris removed during the excavation will be incorporated into the waste.

Confirmation sampling will be performed on the floor and sidewalls of the excavation as detailed in Section 2.5.1. In the event that a confirmation sample exceeds non-residential cleanup criteria then additional excavation and sampling will be performed as needed.

2.3.2 Lead-impacted Soil Removal

Lead impacted soils will be excavated using heavy equipment and transported offsite to an approved facility for disposal. All removed soil is assumed to be hazardous waste based on Site investigations which show that the Toxicity Characteristic Leaching Procedure (TCLP) results from soil samples exceeding 900 mg/kg also exceed the Resource Conservation and Recovery Act (RCRA) TCLP standard of 5 mg/l. Hazardous soils will be transported offsite for stabilization treatment and disposal.

The estimated initial extent of lead soil removal is shown on Figure 4. The estimated area to be excavated is approximately 12 feet wide by 100 feet long by 3.5 feet deep. The area is bounded by the RACER/CSX property boundary to the west and by soil borings RFI-09-50, SB-09-23, SB-09-25, SB-09-26, SB-09-28, SB-09-30, SB-09-17, and SB-09-18 to the north, east, and south. The excavation area was defined based on laboratory analytical data from RCRA Facility Investigation (RFI) activities and the August 2010 lead soil investigation which includes both laboratory analysis and X-ray florescence (XRF) field screening for lead concentrations. The data from the soil borings identified above as SB-XX-XX are XRF field screening data. An evaluation of the XRF data was previously presented in the 2011 CMI Annual Report. In general high XRF readings correlated to high laboratory total lead concentrations and low XRF readings correlated to low laboratory total lead concentrations; however, the field screening and laboratory results were not directly comparable. The approximate volume to be removed is estimated to be 200 cubic yards. Any surface concrete/ asphalt and/or debris removed during the excavation will also be disposed of.

Confirmation sampling will be performed on the floor and sidewalls of the excavation and is explained in detail in Section 2.4. In the event that a confirmation sample exceeds non-residential cleanup criteria then additional excavation and sampling will be performed as needed.

2.3.3 Air Monitoring and Dust Suppression

Air monitoring will be performed and documented throughout all dust generating activities due to the potential for inhalation exposure to dust containing lead and the potential presence of PNAs. Air quality will be continuously monitored with a particulate meter and flame ionization detector (FID) within and around the work zone to monitor potential exposure to workers and others (e.g., property users, occupants, or adjacent land owners). Appendix A presents the Standard Operating Procedure (SOP) for FID Air Monitoring and Field Screening.

2.3.3.1 Wind Direction Monitoring

One wind direction measurement device (wind sock or equivalent) will be located in an open area within the Site (unobstructed by buildings or trees) that will provide an accurate wind direction.

Wind direction will be measured continuously during soil removal activities. Field staff will check readings at least hourly. The results of the wind direction monitoring

will be used to determine placement of perimeter monitoring stations. Soil handling activities will cease if wind speed is reported by the National Weather Service to exceed 40 mph unless soil is saturated or it is raining.

2.3.3.2 Particulate Monitoring

Air quality will be continuously monitored at temporary air monitoring stations using a MIE Data RAM (or equivalent) which measures total suspended particulate (dust) in micrograms/cubic meter of air ($\mu g/m^3$). Monitoring will be completed real time at a minimum of two monitoring stations (1 upwind and 1 downwind of the excavation area) continuously during excavation activities. Field staff will verify operation of the equipment and record measurements of total suspended particulate, date, time, and wind direction at least hourly during excavation activities. The number, location, and frequency of temporary individual monitoring stations will depend on the activities being conducted and the predominant wind direction.

Based on the shallow depths of the proposed excavations (0 to 3.5 foot below ground surface [bgs]) and the limited lateral extent of these excavations, dust problems are not anticipated during soil removal activities. However, if the action levels presented in Appendix A are exceeded at any time, work will be stopped immediately, and a plan to reduce dust emissions will be established. These measures may include, but are not limited to, spraying the excavations lightly with clean water to minimize dust emissions. The action levels for the contaminants of concern are included in Appendix A.

2.4 Confirmation Sampling

Confirmation samples will be collected following the soil removal action using the "statistical" sampling approach identified as the Systematic Random Sampling method in Section 2.4.2.2 of the 2002 Michigan Department of Environmental Quality (MDEQ) Sampling Strategies and Statistics Training Materials (S3TM) for Part 201 Cleanup Criteria (excerpted in Appendix B).

2.4.1 Benzo(a)pyrene-impacted soil sampling

The excavation area is bounded by the RACER/CSX property boundary to the west and by soil borings SB-09-35, SB-09-03, SB-09-33, and SB-09-34 to the south and east. Sidewall samples will not be collected from the west wall of the excavation area due to the fact that excavation will not be performed on the RACER property to the west.

For the remainder of the excavation sidewall and bottom confirmation samples will be collected on a grid-based system as recommended in the S3TM with grid spacing set at 7 feet based on the excavation square footage of 600 square feet. Confirmation samples will be collected at the grid nodes (i.e., points of intersection); however, samples will be biased towards staining or indications of impact, if noted. In addition FID will be utilized during the excavation process to monitor for potential exposure and to screen soil at the limits (floor and sidewalls) of the excavation to aid in determining the extents.? Soil sample collection will also be biased towards elevated FID readings.

Confirmation samples will be collected after the anticipated depth and lateral extent of the excavation is reached. Confirmation samples will be collected in laboratory-provided containers using a decontaminated stainless-steel scoop or shovel. All sampling, analysis, and decontamination activities will be performed in accordance with the Site *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) (BBL, 2001), Addendum Number 1 to Appendix C of the March 30, 2001 *RCRA Facility Investigation Work Plan – Field Sampling Plan/Quality Assurance Project Plan* (2005) and Addendum Number 2 (2005), and HASP (ARCADIS, 2010). Pertinent sections of the FSP/QAPP have been excerpted and are presented in Appendix C of this work plan**.** Sample containers will be labeled with the sample location identification, date of sample collection, and intended analysis. The samples will be immediately placed on ice in a cooler awaiting transport to the laboratory by courier. Samples will be submitted to the laboratory for PNA analysis.

2.4.2 Lead-impacted soil sampling

The excavation area is bounded by the RACER/CSX property boundary to the west. Sidewall samples will not be collected from the west wall of the excavation area due to the fact that excavation will not be performed on the RACER property to the west.

For the remainder of the excavation sidewall and bottom confirmation samples will be collected on a grid-based system as recommended in the S3TM with grid spacing set at 10 feet based on the excavation square footage of 1,200 square feet. Confirmation samples will be collected at the grid nodes (i.e., points of intersection); however, samples will be biased towards staining or indications of impact, if noted.

Confirmation samples will be collected after the anticipated depth and lateral extent of the excavation is reached. Confirmation samples will be collected in laboratory-provided containers using a decontaminated stainless-steel scoop or shovel. Sampling, analysis, and decontamination activities will be performed in accordance

with the FSP/QAPP (BBL, 2001, 2005) and HASP (ARCADIS, 2010). Sample containers will be labeled with the sample location identification, date of sample collection, and intended analysis). The samples will be immediately placed on ice in a cooler awaiting transport to the laboratory by courier. Samples will be submitted to the laboratory for total lead analysis.

Based upon the available soil chemistry data, the depth of the excavation is assumed to be less than 4 feet and therefore no shoring will be required prior to an individual entering the excavation for sampling. If the sample results necessitate excavating deeper than 4 feet, the excavation will be stabilized as described in Section 2.6.

2.5 Soil Transport and Disposal Management

Excavated soil will be live-loaded into trucks or roll-off boxes staged at the Site during the removal action to minimize the need for stockpiling soils. All soils will be transported to an appropriate disposal facility.

Loaded trucks will follow a prescribed transportation route to the designated disposal facility. ARCADIS will provide oversight of the work on behalf of RACER. ARCADIS will review, approve, and sign all waste profiles and waste shipping documents/manifests prior to the shipment of soil from the Site. ARCADIS will obtain weight tickets, tare/gross weight slips, and waste shipping documents from each truckload of soil transported from the Site. The volume of material removed from the Site will be recorded in the field notes in accordance with the FSP/QAPP (BBL, 2001, 2005) and HASP (ARCADIS, 2010). Certificates of disposal will be obtained from the disposal facilities. Copies of all transport and disposal documentation will be provided in the removal action completion report and will be kept on file as part of the administrative record by RACER as long as is appropriate.

2.6 Shoring and Dewatering

Due to depth and relative width of the excavation shoring/benching of excavation slopes will not be necessary during the excavation process. If re-excavation is deemed necessary and a shear wall of 4 feet or greater will be created as a result, that portion of the excavation will be sloped appropriately in accordance with the OSHA 29 Code of Federal Regulations Section 1926.650-652. Due to the depth of the excavation it is not anticipated that groundwater will be encountered. Any storm water encountered that does not infiltrate to the ground will be containerized and properly disposed.

2.7 Site Restoration

The excavation will be backfilled to approximately 6 inches bgs with unimpacted fill soil, and the remaining 6 inches will be backfilled with topsoil. A letter of virgin material or sample analytical results verifying that the material is clean will be provided prior to any backfill activities. The backfill material will be compacted in the excavated areas. The topsoil will be covered with grass seed to re-vegetate the ground surface to prevent erosion. If necessary, additional grass seed will be placed at locations outside the excavation areas to repair grass that was disrupted by removal activities. Every effort will be made to minimize disturbance to non-impacted areas of the Site during removal. Following stabilization of the ground surface, all temporary measures will be removed. Upon completion of work, any chain link security fence removed to allow for excavation shall be replaced.

3. Reporting

A brief memo-style report will be prepared to document the activities and final confirmation sample results associated with this work plan. The report will include the following information:

- Description of the field activities performed during the course of the excavation and related activities;
- The final excavation limits and locations of all confirmation samples;
- Additional relevant information, including, but not limited to, field forms and analytical data.

4. References

BBL, 2001. *Field Sampling Plan/Quality Assurance Project Plan, March 30, 2001*

ARCADIS, 2005. *Addendum Number 1 to Appendix C of the March 30, 2001 RCRA Facility Investigation Work Plan – Field Sampling Plan/Quality Assurance Project Plan, May13, 2005.*

ARCADIS, 2005. *Addendum Number 2 to Appendix C of the March 30, 2001 RCRA Facility Investigation Work Plan – Field Sampling Plan/Quality Assurance Project Plan, November 7, 2005.*

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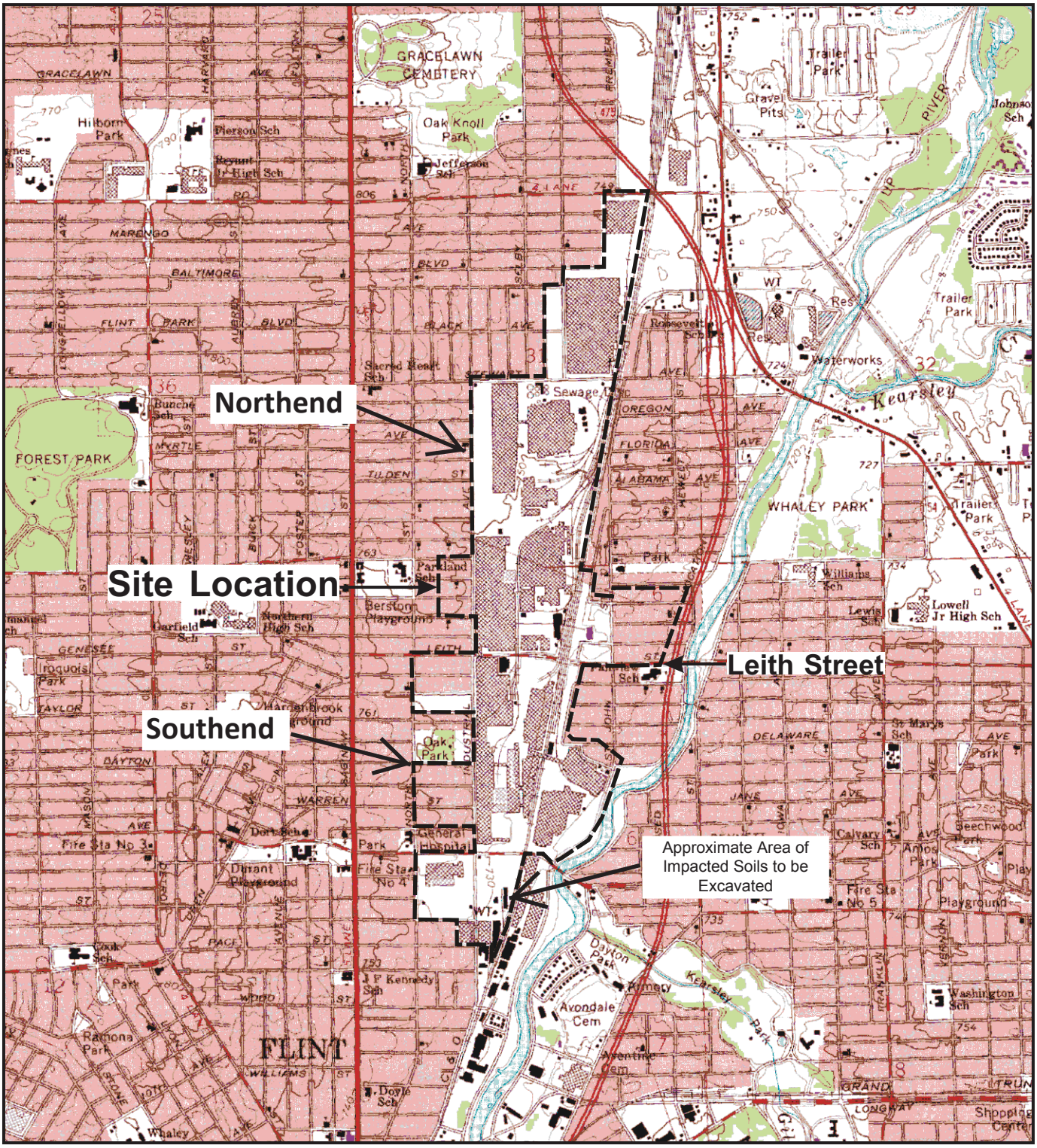
ARCADIS

Figures



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

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

RACER TRUST
BUICK CITY - FLINT, MICHIGAN
AOI 09-A IMPACTED SOIL REMOVAL WORK PLAN

SITE LOCATION

ARCADIS

FIGURE
1

05/07/2012 SYRACUSE, NY-ENV/CAD-DJHOWES
B0064410/4012/00104/CDR/64410N02.CDR

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM: M. LOVEJOY LYR: ON=*;OFF=*REF,|PROPERTY-PREV,|SHD-BUILDING,|NAPL_OBS
G:\ENV\CAD\SYRACUSE\ACT\B0064410\20120110\1\DWG\64410C02.dwg LAYOUT: 2 SAVED: 6/18/2012 4:20 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 6/18/2012 4:21 PM BY: KOWALCZYK, STEVE
XREFS: IMAGES: PROJECTNAME: ---
64410X01
64410X00

HAMILTON AVE

CSX PROPERTY

RACER PROPERTY

ESTIMATED LEAD SOIL EXCAVATION AREA

BLDG. 9

ESTIMATED BENZO(A)PYRENE SOIL EXCAVATION AREA

TRUCK ROUTE

INDUSTRIAL AVE

LEGEND:

- RACER/CSX PROPERTY BOUNDARY
- RAILROAD
- FENCE
- FORMER BUILDING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 60' 120'

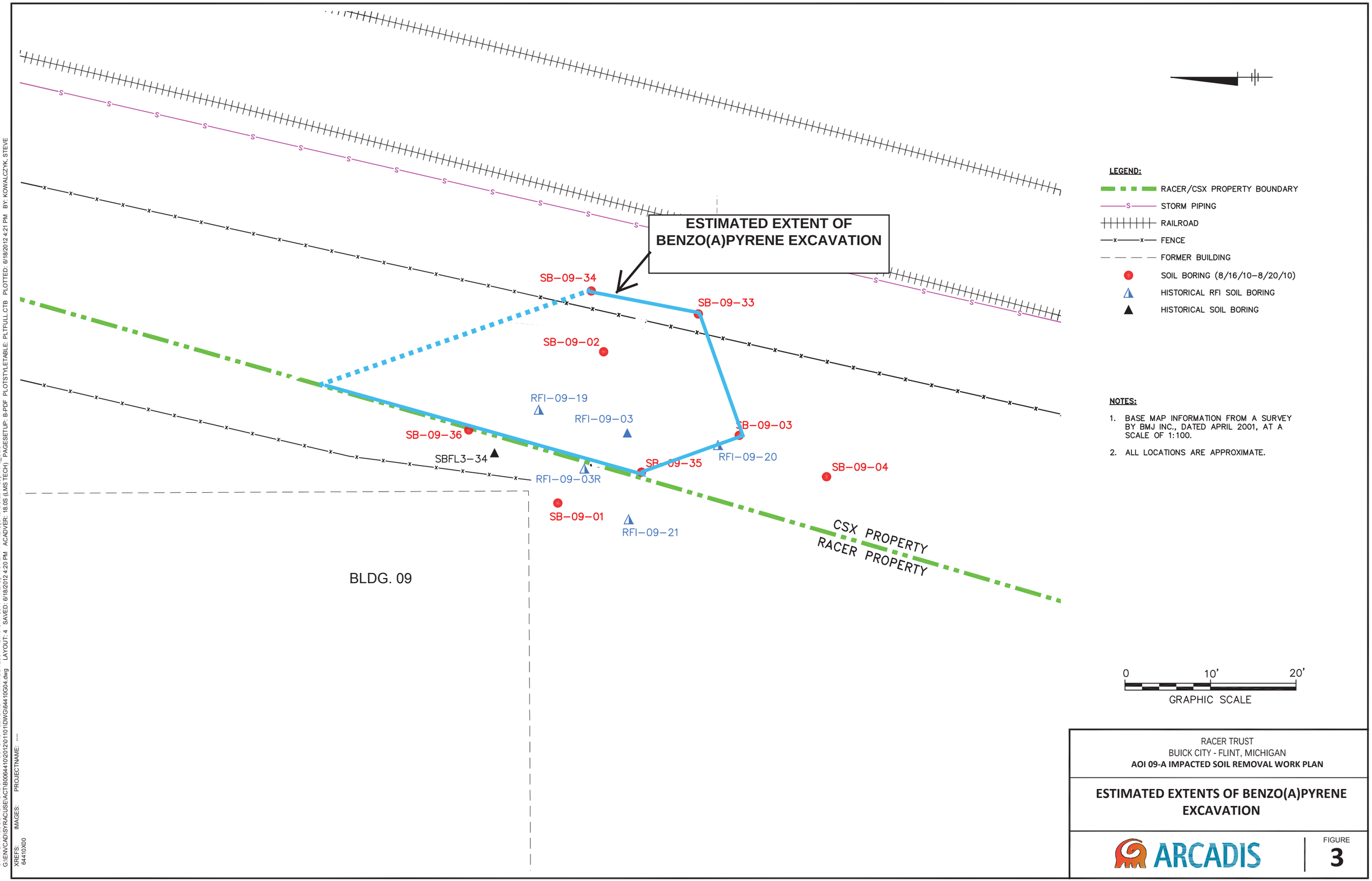
GRAPHIC SCALE

RACER TRUST
BUICK CITY - FLINT, MICHIGAN
AOI 09-A IMPACTED SOIL REMOVAL WORK PLAN

SITE PLAN

ARCADIS

FIGURE
2



RACER TRUST
BUICK CITY - FLINT, MICHIGAN
AOI 09-A IMPACTED SOIL REMOVAL WORK PLAN

ESTIMATED EXTENTS OF BENZO(A)PYRENE EXCAVATION

ARCADIS

FIGURE
3

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM: M. LOVEJOY LYR: ON=*;OFF=*REF, |PROPERTY-PREV, |SHD-BUILDING, |NAPL_OBS
G:\ENVCAD\SYRACUSE\ACT\B0064410\2012\01101\DWG\64410G04.dwg LAYOUT: 4 SAVED: 6/18/2012 4:20 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 6/18/2012 4:21 PM BY: KOWALCZYK, STEVE
XREFS: IMAGES: PROJECTNAME: ----
64410X00

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: GMS PM: M. LOVEJOY LYR: ON=*;OFF=*REF,|PROPERTY-PREV,|SHD-BUILDING,|NAPL_OBS
G:\ENVCAD\SYRACUSE\ACTIB\06441\2012\2011011\DWG\64410G03.dwg LAYOUT: 3 SAVED: 6/18/2012 4:20 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 6/18/2012 4:21 PM BY: KOWALCZYK, STEVE
XREFS: IMAGES: PROJECTNAME: ---
64410X00

ESTIMATED EXTENTS OF LEAD EXCAVATION

CSX PROPERTY
RACER PROPERTY

SB-09-22
SB-09-24
SB-09-21
SB-09-48
SB-09-20
SB-09-27
SB-09-23
SB-09-25
SB-09-29
SB-09-31
SB-09-32
SB-09-26
SB-09-28
SB-09-07
SB-09-40
SB-09-30
SB-09-52
SB-09-08
SB-09-42
SB-09-09
SB-09-43
SB-09-38
SB-09-54
SB-09-17
SB-09-53
SB-09-41
SB-09-12
SB-09-49
SB-09-19
SB-09-05
SB-09-39
SB-09-13
SB-09-06
SB-09-10
SB-09-18
SB-09-44
SB-09-51
SB-09-11
SB-09-50
SB-09-46
SB-09-14
SB-09-15
SB-09-37
SB-09-47
SB-09-16

RFI-09-17
RFI-09-51
RFI-09-50
RFI-09-16
RFI-09-01R
RFI-09-36
RFI-09-15
RFI-09-02
RFI-09-18
RFI-09-39
RFI-09-37

SBFL3-33

BLDG. 09

LEGEND:

- RACER/CSX PROPERTY BOUNDARY
- STORM PIPING
- RAILROAD
- FENCE
- FORMER BUILDING
- SOIL BORING (8/16/10–8/20/10)
- HISTORICAL RFI SOIL BORING
- HISTORICAL SOIL BORING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 20’ 40’
GRAPHIC SCALE

RACER TRUST
BUICK CITY - FLINT, MICHIGAN
AOI 09-A IMPACTED SOIL REMOVAL WORK PLAN

ESTIMATED EXTENTS OF LEAD EXCAVATION

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FIGURE
4

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Appendix A

Standard Operating Procedures and Action Levels

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Infrastructure, environment, facilities

Imagine the result

Flame Ionization Detector Air Monitoring and Field Screening

Rev. #: 0

Rev Date: July 25, 2003

I. Scope and Application

Field screening with a flame ionization detector (FID), such as an organic vaporizer analyzer (OVA), is a procedure to measure relative concentrations of volatile organic compounds (VOCs) and other compounds in air. The characteristics of the OVA are presented in Attachment 1; the compounds which it can detect are presented in Attachment 2; indicators of malfunction are summarized in Attachment 3; and the OVA Calibration and Maintenance Log is included in Attachment 4

Field screening will be conducted on the following:

- Work area air to assess exposure to on-site workers of air contaminants via the air pathway;
- Well headspaces as a precautionary measure each time the well cover is opened; and
- Soil samples obtained with split-barrel sampler.

II. Personnel Qualifications

To be completed by Preparer and reviewed by Technical Expert.

III. Equipment List

The following materials, as required, shall be available while performing OVA field screening:

- personal protective equipment (PPE), as required by the site Health and Safety Plan (HASP);
- OVA operating manual;
- calibration gas canisters; and
- field notebook.

IV. Cautions

To be completed by Preparer and reviewed by Technical Expert.

V. Health and Safety Considerations

To be completed by Preparer and reviewed by Technical Expert.

VI. Procedure

The OVA will be operated according to the procedures contained in the operating manual. A summary of basic start-up and shut-down procedures is provided below.

Start-Up

1. Move PUMP Switch to ON and check battery condition by moving the INSTR Switch to the BATT position.

2. Move INSTR Switch to ON and allow 5 minutes for warm up.

3. Set Alarm Level Adjust knob on back of Readout Assembly to desired level and adjust volume.

4. Check calibration with HIGH/LOW Calibrate Switch. End the check by going to HIGH position and then to OFF. Turn PUMP Switch ON.

5. Place instrument panel in vertical position and check sample flow rate indication.

6. Open the H2 TANK VALVE and the H2 SUPPLY VALVE.

7. Depress the igniter button until burner lights. Do not depress igniter button for more than 6 seconds (if burner does not ignite, let instrument run for several minutes and again attempt ignition).

8. The instrument is now ready for use.

Shut Down

1. Close the H2 SUPPLY VALVE and H2 TANK VALVE.

2. Move the INSTR Switch and PUMP Switch to OFF.

3. Instrument in now in shut down configuration.

OVA Calibration

OVA field instruments will be calibrated to methane and operated to yield measurements of "total organic vapor" in ppm (v/v). OVA operation, maintenance, and calibration shall be performed in accordance with the manufacturer's instructions and entered on the OVA Calibration and Maintenance Log (Attachment 4). Instructions for OVA calibration are summarized as follows:

Electronic Adjustments for Calibration Using Methane as the Standard

Calibrate the instrument as follows:

1. Prepare two known concentrations of methane gas in air, preferably 100 ppm and 10,000 ppm (1%).

2. Place the OVA in normal operation and permit it to warm up for at least 15 minutes.

3. Introduce the 100 ppm sample and rotate the Calibration Adjust knob for 100 ppm on the meter.

4. Introduce the 10,000 ppm mixture and adjust R-4 on the electronics board for 10,000 ppm.

5. Repeat Steps 3 and 4 until no further adjustment is necessary.

6. Close the Hydrogen Supply Valve and wait until the flame is extinguished.

7. Place the Calibrate Switch in the Low position and rotate the GAS Select knob until the meter reads 10 ppm.

8. Place the Calibrate Switch in the High position and adjust R-16 on the electronics board for 10,000 ppm.

9. Repeat Steps 7 and 8 until no further adjustment is necessary.

Work Area Air Monitoring

1. Measure and record the background OVA reading.

2. Measure and record breathing space reading.

3. Adjust level of PPE, as described in the HASP, and proceed.

4. Record OVA readings.

VII. Waste Management

To be completed by Preparer and reviewed by Technical Expert.

VIII. Data Recording and Management

To be completed by Preparer and reviewed by Technical Expert.

IX. Quality Assurance

To be completed by Preparer and reviewed by Technical Expert.

X. References

To be completed by Preparer and reviewed by Technical Expert.

ATTACHMENT 1

CHARACTERISTICS OF THE OVA

The organic vapor analyzer (OVA) is one type of flame ionization detector (FID). All FID instruments use ionization as the detection method, much the same as in the photoionization detector (PID), except that the ionization is caused by a hydrogen flame rather than by a UV light. This flame has sufficient energy to ionize any organic species with an ionization potential of 15.4 or less. Inside the detector chamber, the sample is exposed to a hydrogen flame which ionizes the organic vapors. When most organic vapors burn, positively charged carbon-containing ions are produced which are collected by a negatively charged collecting electrode in the chamber. An electric field exists between the conductors surrounding the flame and a collecting electrode. As the positive ions are collected, a current proportional to the hydrocarbon concentration is generated on the input electrode. This current is measured with a preamplifier which has an output signal proportional to the ionization current.

A signal conducting amplifier is used to amplify the signal from the pre-amp and to condition it for subsequent meter or external recorder display.

The Foxboro OVA consists of two major parts:

- A 9-pound package containing the sampling pump, battery pack, support electronics, FID, hydrogen gas cylinder, and an optional gas chromatography (GC) column; and

- A hand-held meter/sampling probe assembly.

The OVA is generally calibrated to methane, but can be calibrated to the species of interest.

The OVA can be operated in a GC mode or survey mode. During normal survey mode operation, a sample is drawn into the probe and transported to the detector chamber by an internal pumping system. When the sample reaches the FID, it is ionized as described above and the resulting signal is translated on the meter for direct-reading concentration as total organic vapors or recorded as a peak on the chart. The meter display is an integral part of the probe/read-out assembly and has a scale from 0 to 10 which can be set to read 0-10, 0-100, or 0-1,000 ppm.

With the GC option, individual components can be detected and measured independently. In the GC mode, a small sample of ambient air is injected into a chromatographic column and carried through the column by a stream of hydrogen gas. Two valves are used in the GC system: the sample inject valve and the backflush valve. The sample inject valve diverts a fixed volume of vapor contained in the sample loop into the hydrogen gas carrier and through the chromatographic column for separation identification, and quantification of individual components present. The backflush valve reverses the flow of the hydrogen flow through the GC column to clear the column of any contamination. In the GC mode, backflush plays a significant role in determining the presence of high boiling contaminants. If no peaks are observed after the desired run time, the user might assume no contaminants are present; however, high boiling volatiles may still be present. Backflushing allows for the detection of high boiling volatile components.

Compounds with different chemical structures are retained on the column for different lengths of time (known as retention times) and, hence, are detected separately by the FID. As each component exits the column into the detector, it is ionized and a proportional output voltage is recorded on a strip chart recorder. A strip chart recorder can be used to record the retention times, which are then compared to the retention times of a standard with known chemical constituents.

An instrument output meter serves to indicate, in ppm units, the concentration of total organic vapor. The concentration (in ppm) represents a summation of the percent relative response values characteristic of each individual organic compound in the sample. The sample can either be injected into the column from the air sampling hose or injected directly with a gas-tight syringe.

ATTACHMENT 2

RESPONSE FACTORS FOR THE OVA

CHEMICAL COMPOUND	RESPONSE FACTOR (%)
Acetonitrile	70
Acrylonitrile	70
Allyl Alcohol	30
Allyl Chloride	50
BenzenE	150
2-Bromo-2-chloro-1,1,1-trifluoroethane (Halothane)	45
Bromomethane	75
1-Bromopropane	75
2-Butane	60
n-Butanol	50
2-Butanol	65
n-Butyl Acetate	80
n-Butyl Acrylate	60
2-Butyl Acrylate	70
n-Butyl Formate	50
2-Butyl Formate	60
n-Butyl Methacrylate	60
2-Butyl Methacrylate	80
Carbon Tetrachloride	10
Chlorobenzene	200
Chlorodifluoromethane (Freon 22)	40
Chloroform	65
1-Chloropropane	76
2-Chloropropane	90
2-Chloro-1,1,2-trifluoroethyl difluoromethyl ether (Ethane)	150
Cumene	100
Cyclohexane	85
Cyclohexanone	100
n-Decane	75
O-Dichlorobenzene	50
Dichlorodifluoromethane (Freon 12)	15
1,1-Dichloroethane	80
1,2-Dichloroethane	80
trans-1,2-Dichloroethylene	50
Dichlorofluoromethane (Freon 21)	70
Dichloromethane	100
1,2-Dichloropropane	90
1,3-Dichloropropane	80
1,2-Dichloro 1,1,2,2-tetrafluoroethane (Freon 114)	110

CHEMICAL COMPOUND	RESPONSE FACTOR (%)
Diethyl Ether	50
Diethyl Ketone	80
p-Dioxane	30
Ethane	80
Ethanethiol	30
Ethanol	25
Ethyl Acetate	65
Ethyl Acrylate	40
Ethyl Benzene	100
Ethyl Butyrate	70
Ethyl Formate	40
Ethyl Methacrylate	70
Ethyl Propionate	65
Ethylene Dibromide	50
Ethylene Dichloride	60
Ethylene Oxide	70
Fluorotrichloromethane (Freon 11)	10
Heptane	75
Hexane	70
Isoprene	50
Methane	100
Methyl Alcohol	12
Methyl Acetate	41
Methyl Acrylate	40
Methyl Cyclohexane	100
Methyl Cyclopentane	80
Methyl Ethyl Ketone	80
Methyl Isobutyl Ketone	80
Methyl Methacrylate	50
Methyl Propyl Ketone	70
Nitromethane	35
1-Nitropropane	60
2-Nitropropane	70
Nonane	90
Octane	80
Pentane	65
Pentanol	40
Propane	80
n-Propanol	40
2-Propanol	65
n-Propyl Acetate	75
n-Propyl Ether	65
n-Propyl Formate	50

CHEMICAL COMPOUND	RESPONSE FACTOR (%)
Pyridine	128
Styrene	85
1,1,1,2-Tetrachloroethane	100
1,1,2,2-Tetrachloroethane	100
Tetrachloroethylene	70
Tetrahydrofuran	40
Toluene	110
1,1,1-Trichloroethane	105
1,1,2-Trichloroethane	85
Trichloroethylene	70
Trichlorofluoroethane (Freon 113)	80
Triethylamine	70
Vinyl Acetate	50
Vinyl Chloride	35
Vinylidene Chloride	40
m-Xylene	111
o-Xylene	116
p-Xylene	116

Note:

[1] Response factors for Foxboro Century OVA when instrument is calibrated to methane. For example, the instrument response factor for benzene is 150% and a 100 ppm concentration of benzene in air would register as 150 ppm on the instrument read-out.

ATTACHMENT 3

INDICATORS OF MALFUNCTION OF THE OVA

INDICATION	POSSIBLE CAUSES
• High Background Reading (more than 10 ppm)	1. Contaminated hydrogen 2. Contaminated sample line
• Continual Flameout	1. Hydrogen leak 2. Dirty burner chamber 3. Dirty air filters
• Low Air Flow	1. Dirty air filter 2. Pump malfunction 3. Line obstruction
• Flame Will Not Light	1. Low battery 2. Igniter broken 3. Hydrogen leak 4. Dirty burner chamber 5. Air flow restricted
• No Power to Pump	1. Low battery 2. Short circuit
• Hydrogen Leak (instrument not in use)	1. Leak in regulator 2. Leak in valves

ATTACHMENT 4

OVA CALIBRATION AND MAINTENANCE LOG

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Infrastructure, environment, facilities

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Air Monitoring Instruments

Rev. #: 0

Rev Date: August 21, 2003

I. Scope and Application

This Standard Operating Procedure (SOP) provides the accepted methods of calibration of the HNu Model PI-101 Photoionization Detector (HNu) and the Foxboro Model 128 Organic Vapor Analyzer (OVA).

Proper calibration of air monitoring instruments is essential to evidence property evaluation of ambient air readings for the purpose of health and safety screening and for evidentiary air data collection. Without proper instrument calibration to a known concentration of a calibration gas standard, the usefulness of the data cannot be determined.

The following terminology is applicable to calibration of the HNu and OVA.

- • HNu - A photoionization detector that uses an ultraviolet light source to ionize organic and some inorganic gases and vapors for subsequent detection.
- • OVA - A flame ionization detector that uses a hydrogen flame to ionize organic vapors and gases for subsequent detection.
- • Ionization - A process by which a compound is broken down into the atoms that make up the compound, thereby forming positive and negative ions.
- • Gas - A substance that exists in a gaseous state at ordinary temperatures and pressures.
- • Vapor - The gaseous state of a substance that is a liquid or solid at ordinary temperatures and pressures.
- • Trimpot - A screw-type variable resistor incorporated into the electronic circuitry of the HNu and OVA used as a potentiometer to calibrate the instrument.
- • Primary Calibration - Instrument calibration of the HNu and OVA against a known standard calibration gas.
- • Secondary Calibration - In-field calibration check of the HNu or OVA for a stable background reading (zero adjust) and for response to a gaseous organic source.

II. Personnel Qualifications

The Air Equipment Coordinator is responsible for performing routine maintenance on the HNu and OVA and is responsible for the primary calibration of instruments for field

use on a site-specific basis. The Field Investigation Manager (FIM) is responsible for the mobilization of the HNu and OVA, and is also responsible for the mobilization of calibration equipment when site stays are to be extended or when sites are clustered, thereby causing the need for primary instrument calibration. The Health and Safety Supervisor (HSS) is responsible for primary and secondary calibration of the HNu and OVA in the field. The FIM is responsible for documenting instrument calibration in the field logbook. The FIM is accountable to the Project Manager (PM) to ensure successful calibration of air monitoring equipment.

III. Equipment List

To be completed by Preparer and reviewed by Technical Expert.

IV. Cautions

To be completed by Preparer and reviewed by Technical Expert.

V. Health and Safety Considerations

To be completed by Preparer and reviewed by Technical Expert.

VI. Procedure

The following procedures may be employed for primary and secondary calibration of the HNu PI-101 Photoionization Detector:

Calibration

1. Startup and shutdown of the HNu;
2. Maintenance and calibration schedules;
3. HNu calibration;
4. Cleaning the UV light-source window; and
5. Cleaning the ionization chamber.

The aforementioned procedures are from the Compendium of Superfund Field Operations Methods (EPA, 1987).

Startup

- • Check the FUNCTION switch on the control panel to make sure it is in the OFF position. Attach the probe to the readout unit. Match the alignment key and twist the connector clockwise until a distinct locking is felt.

- • Turn the FUNCTION switch to the BATTERY CHECK position. Check that the indicator reads within or beyond the green battery arc on the scale plate. If the indicator is below the green arc or if the red LED comes on, the battery must be charged before using.

- • To zero the instrument, turn the FUNCTION switch to the STANDBY position and rotate the ZERO POTENTIOMETER until the meter reads zero. Wait 15 to 20 seconds to confirm that the zero adjustment is stable. If it is not, then readjust.

- • Check to see that the SPAN POTENTIOMETER is set at the appropriate setting for the probe being used (5.0 for 9.5eV probe; 9.8 for 10.2eV; and 5.0 for 11.7eV).

- • Set the FUNCTION switch to the desired parts per million (ppm) range.

- • Listen for the fan operation to verify fan function.

- • Check instrument with an organic point source, such as a “Sharpie,” before survey to verify instrument function.

Shutdown

- • Turn FUNCTION switch to OFF.

- • Place the instrument on the charger.

Maintenance and Calibration Schedule

The following maintenance/calibration schedule should be followed to ensure proper operation of the HNu.

Function	Frequency
Perform primary calibration	Prior to each use*
Initial factory checkout and calibration	Yearly, when malfunctioning, or after changing UV light source
Wipe down readout unit	After each use
Clean UV light source window	Every month or as use and site conditions dictate
Clean the ionization chamber	Monthly
Recharge battery	After each use

* During extended field use, the HNu PI-101 must be calibrated at least once every 3 days.

Primary Calibration

1. Start up the HNu.

2. Acquire the HNu calibration gas canister. The primary HNu calibration gas is benzene (or isobutylene, a benzene equivalent).

3. Connect the HNu probe to the gas canister using flexible tubing.

4. Allow the calibration gas to be drawn into the probe and check the HNu response in ppm.

5. Adjust the span potentiometer to 9.8 to match the concentration of the isobutylene calibration gas. This procedure should be followed only until the span potentiometer reaches the following limits:

1. Probe	2. Initial Span Potentiometer Setting	3. Maximum Acceptance Span Potentiometer Setting
4. 9.5eV	5. 5.0	6. 1.0
7. 10.2eV	8. 9.8	9. 8.5
10. 11.7eV	11. 5.0	12. 2.0

6. If these limits are exceeded, the HNu must be calibrated. Calibration is accomplished by first adjusting the span potentiometer to its initial setting. The trimpot inside the instrument must then be adjusted to obtain the concentration reading of the calibration gas (9.8). This trimpot is located inside the HNu case on the right side of the instrument.

Calibration Records

The following information should be documented in the field logbook when in field primary calibration of the HNu is required:

1. Serial number of the HNu.

2. Data of calibration.

3. Method of calibration.

4. Results of calibration.

5. Initial reading prior to adjustment.

6. Identification of the person responsible for instrument calibration.

7. Identification of the calibration gas (source, type, concentration, lot number).

Cleaning the UV Light-Source Window

The following procedures may be followed in the field, should the need arise, to clean the UV Light-Source Window:

1. Turn the FUNCTION switch to the OFF position and disconnect the sensor/probe from the Readout/Control unit.

2. Remove the exhaust screw located near the base of the probe. Grasp the end cap in one hand and the probe shell in the other. Separate the end cap and lamp housing from the shell.

3. Loosen the screws on top of the end cap and separate the end cap and ion chamber from the lamp and lamp housing, taking care that the lamp does not fall out of the lamp housing.

4. Tilt the lamp housing with one hand over the opening so that the lamp slides out of the housing into your hand.

5. The lamp window may now be cleaned using lens paper with any of the following compounds:

    a. Use HNu Cleaning Compound on all lamps except the 11.7eV.

    b. Clean the 11.7eV lamp with freon or chlorinated organic solvent. Do not use HNu cleaner, water, or water miscible solvents (i.e., acetone and methanol).

6. Following cleaning, reassemble by first sliding the lamp back into the lamp housing. Place the ion chamber on top of the housing, making sure the contacts are properly aligned.

7. Place the end cap on top of the ion chamber and replace the two screws. Tighten the screws only enough to seal the O-ring. Do not overtighten.

8. Line up the pins on the base of the lamp housing with pins inside the probe shell and slide the housing assembly into the shell. It will fit only one way.

9. Replace the exhaust screw.

Cleaning the Ionization Chamber

The following procedures may be followed in the field, should the need arise, to clean the HNu ionization chamber.

1. Turn the FUNCTION switch to the OFF position and disconnect the sensor/probe from the Readout/Control unit.

2. Remove the exhaust screws located near the base of the probe. Grasp the end cap in one hand and the probe shell in the other. Separate the end cap and lamp housing from the shell.

3. Loosen the screws on top of the end cap and separate the end cap and ion chamber from the lamp and lamp housing, taking care that the lamp does not fall out of the lamp housing.

4. The ion chamber may now be cleaned according to the following sequence:

    a. Clean with methanol using a Q-tip.

    b. Dry gently at 50ºC to 60ºC for 2 hours.

5. Place the ion chamber on top of the housing, making sure the contacts are properly aligned.

6. Place the end cap on top of the ion chamber and replace the two screws. Tighten the screws only enough to seal the O-ring. Do not overtighten.

7. Line up the pins on the base of the lamp housing with pins inside the probe shell and slide the housing assembly into the shell. It will fit only one way.

The following procedures may be employed for primary and secondary calibration of the Foxboro Model 128 Organic Vapor Analyzer (OVA):

Calibration

1. Startup and shutdown of the OVA;
2. Maintenance and calibration schedules;
3. OVA calibration;
4. Hydrogen recharge of the OVA;
5. Pump system checkout; and
6. Cleaning the burner chamber.

The aforementioned procedures are from the Compendium of Superfund Field Operations Methods (EPA, 1987).

Startup

1. Connect the probe/readout connectors to the side-pack assembly.
2. Check battery condition and hydrogen supply.
3. For measurements taken as methane equivalent, check that the GAS SELECT dial is set at 300.
4. Turn the electronics on by moving the INST switch to the ON position, and allow 5 minutes for warm-up.
5. Set CALIBRATE switch to X10; use CALIBRATE knob to set indicator to 0.
6. Open the H2 supply valve all the way. Check that the hydrogen supply gauge reads between 8.0 and 12.0 psig.
7. Turn the PUMP switch ON and check the flow system.
8. Check that the BACKFLUSH and INJECT valves are in the UP position.
9. To light the flame, depress the igniter switch until a meter deflection is observed. The igniter switch may be depressed for up to 5 seconds. Do not depress for longer than 5 seconds, as it may burn out the igniter coil. If the instrument does not light, allow the instrument to run several minutes and repeat ignition attempt.

10. Confirm OVA operational state by using an organic source, such as a “Sharpie.”

11. Establish a background level in a clean area or by using the charcoal scrubber attachment to the probe (depress the sample inject valve) and by recording measurements referenced to background.

12. Set the alarm level, if desired.

Shutdown

1. Close H2 supply valve and H2 tank valve (do not overtighten valves).

2. Turn INST switch to OFF.

3. Wait until H2 supply gauge indicates system is purged of H2, then switch off pump (approximately 10 seconds).

4. Put instrument on electrical charger at completion of day’s activities.

Maintenance and Calibration Schedule

Function	Frequency
Secondary calibration	Prior to project startup
Primary calibration	Monthly, or if secondary check is off by more than +10%
Check pumping system	Prior to project startup
Check particle filters	Weekly, or as needed
Clean burner chamber	Monthly, or as needed
Quad ring service	Monthly, or as needed
Replace charcoal	120 hours of use or when background readings are higher with the inject valve down then with the inject valve up in a clean environment

Primary and Secondary Calibration Procedures for OVA Model 128

Procedures for primary and secondary calibration of the OVA are as follows:

Primary Calibration

1. Remove instrument components from the instrument shell.

2. Turn on electronics and zero instrument on X10 scale. Gas select dial to 300.

3. Turn on PUMP and HYDROGEN. Ignite flame. Go to SURVEY MODE.

4. Introduce a methane standard near 100 ppm.

5. Adjust R32 Trimpot on circuit board to make meter read to standard.

6. Turn off hydrogen flame and adjust meter needle to read 40 ppm (calibrate at X10) using the calibration adjust knob.

7. Switch to X100 scale and adjust meter to read 0.4 on the 1 to 10 meter markings (0.4 x 100 = 40 ppm). If the reading is off, adjust with R33 Trimpot.

8. Return to X10 scale and adjust meter to read 0.4 on the 1 to 10 meter markings using the calibration adjust. Switch to X1 scale. The meter should read 4 ppm. If the reading is off, adjust using the R31 Trimpot.

Secondary Calibration

1. Acquire a gas canister with 100 ppm (certified) methane calibration gas.

2. Connect the outlet of the air-sampling bag to the air-sampling line of the OVA.

3. Record the reading obtained from the meter on the calibration record.

Calibration Records for the OVA

The following information should be documented in the field logbook when in-field primary calibration of the OVA is required:

1. Serial number of the OVA.

2. Date of calibration.

3. Method of calibration.

4. Result of calibration.

5. Identification of person who calibrated the instrument.

6. Identification of the calibration gas (concentration and serial number of cylinder).

Charging the OVA with Hydrogen

1. High grade hydrogen (99.999%) is required. Maximum pressure the instrument can handle is 2,300 psig.

2. Connect the fill hose to the REFILL FITTING on the side pack assembly with FILL//BLEED valve on the OFF position.

3. Open the cylinder of 99.999% hydrogen.

4. Place FILL/BLEED valve on FILL Hose in BLEED position momentarily to purge any air out of the system.

5. Open the instrument tank valve.

6. Open REFILL valve on instrument.

7. Place FILL/BLEED valve in FILL position until the instrument pressure gauge equalizes with the hydrogen cylinder gauge.

8. Close tank valve, REFILL valve, and FILL/BLEED valve.

9. Turn FILL/BLEED valve to BLEED until the pressure in the hose is released.

10. Disconnect the FILL HOSE and replace protective nut on the REFILL FITTING.

OVA Pump System Checkout

1. With pump on, hold unit upright and observe flow gauge.

2. Ball level significantly below a reading of 2 is inadequate flow.

3. Check connections at the sample hose.

4. Clean or replace particle filters if flow is impaired or it is time for scheduled service.

5. Reassemble and retest flow.

6. If flow still inadequate, replace pump diaphragm and valves.

7. If flow is normal, plug air intake. Pump should slow and stop.

8. If no noticeable change in pump, tighten fittings and retest.

9. If still no change, replace pump diaphragm and valves.

10. Document this function in the maintenance records.

Burner Chamber Cleaning

The following procedures may be followed in the field, should the need arise, to clean the OVA burner chamber:

1. Remove plastic exhaust port cover.

2. Unscrew exhaust port.

3. Use wire brush to clean burner tip and electrode. Use wood stick to clean the Teflon housing.

4. Brush inside of exhaust port.

5. Blow out chamber with a gentle air flow.

6. Reassemble and test unit.

7. Document this function in the maintenance records.

Particle Filter Servicing

There are two points in the air sampling line of the OVA where filters have been placed to keep particulate from entering the instrument. The locations of these filters are indicated on the attached figure. The first filter is located in the probe assembly and the second filter (primary filter) is located on the side pack assembly. Cleaning procedures are as follows:

1. Detach the probe assembly from the readout assembly.

2. Disassemble the probe (the components unscrew).

3. The particle filter located within the probe can be cleaned by blowing air through the filter.

4. Reassemble the probe.

5. The primary filter, located behind the sample inlet connector on the side pack assembly, is accessed by removing the sample inlet connector with a thin-walled 7/16-inch socket wrench. Remove the filter and clean as above.

6. Reassemble the sample inlet fitting and filter to the side pack assembly.

7. Check sample flow rate.

Quad Ring Service

1. Remove OVA guts from protective shell.

2. Remove clip ring from bottom of valve.

3. Unscrew nut from top of valve.

4. Gently pull valve shaft upward and free of housing.

5. Observe rings for signs of damage - replace as necessary.

6. Lightly grease rings with silicone grease.

7. Reassemble valve - do not pitch rings during shaft insertion.

8. Document this function in the maintenance records.

VII. Waste Management

To be completed by Preparer and reviewed by Technical Expert.

VIII. Data Recording and Management

Field documentation of air monitoring equipment calibration must provide sufficient information and data to both enable reconstruction of field activities and evidence proper calibration methods.

The following documentation will be retained in the project file:

1. Field logbooks.

2. Records of calibration, maintenance, and field checkout procedures for any measuring and test equipment used.

IX. Quality Assurance

To be completed by Preparer and reviewed by Technical Expert.

X. References

Century Systems (Foxboro). Service Procedures: Organic Vapor Analyzer; 128GC.

HNu Systems, Inc. Instruction Manual for Model PI-101 Photoionization Analyzer.

EPA, 1987. *A Compendium of Superfund Field Operations Methods*. Section 15.2: HNu PI-101, pp. 15-17 to 15-30. Section 15.3: Organic Vapor Analyzes (OVA-128), pp. 15-30 to 15-38. Office of Emergency and Remedial Response, Office of Waste Programs Enforcement. U.S. Environmental Protection Agency, Washington, D.C. EPA/540/p-87/001. December 1987.

ATTACHMENT A
HNu TROUBLESHOOTING
To be performed by qualified technician only.

A. No meter response in any switch position (including BATT CHK)

1. Broken meter movement

   a. Tip instrument rapidly from side to side. Meter needle should move freely, and return to zero.

2. Electrical connection to meter is broken

   a. Check all wires leading to meter and clean the contacts of quick-disconnects.

3. Battery is completely dead

   a. Disconnect battery and check voltage with volt-ohm meter.

4. If none of the above solves the problem, consult the factory.

B. Meter responds in BATT CHK position, but reads zero or near zero for all others.

1. Power supply defective

   a. Check power supply voltages per Figure 11 of the HNu owner's manual. If any voltage is out of specification, consult the factory.

2. Input transistor or amplifier has failed

   a. Rotate zero control; meter should deflect up/down as control is turned.

   b. Open probe. Both transistors should be fully seated in sockets.

3. Input signal connection broken in probe or readout.

   a. Check input connector on printed circuit board. The input connector should be firmly pressed down.

   b. Check components on back side or printed circuit board. All connections should be solid, and no wires should touch any other object.

   c. Check all wires in readout for solid connections.

C. Instrument responds correctly in BATT CHK, and STBY, but not in measuring mode

1. Check to see that light source is on.

D. Instrument responds correctly in all positions, but signal is lower than expected.

1. Check span stetting for correct value.
2. Clean window of light source.
3. Double check preparation of standards.
4. Check for proper fan operation.
5. Rotate span setting. Response should change if span pot is working properly.

E. Instrument responds in all switch positions, but is noisy (erratic meter movement)

1. Open circuit in feedback circuit. Consult the factory.
2. Open circuit in cable shield or probe shield. Consult the factory.

F. Instrument response is slow and/or irreproducible.

1. Fan operating improperly.
2. Check calibration and operation.

G. Low battery indicator

1. Indicator comes on if battery charge is low.
2. Indicator also comes on if ionization voltage is too high.

ATTACHMENT B
OVA TROUBLESHOOTING

Indication	Possible Causes
High Background Reading (More than 10 ppm)	1. Contaminated Hydrogen 2. Contaminated Sample Line
Continual Flameout	1. Hydrogen Leak 2. Dirty Burner Chamber 3. Dirty Air Filters
Low Air Flow	1. Dirty Air Filter 2. Pump Malfunction 3. Line Obstruction
Flame Will Not Light	1. Low Battery 2. Igniter Broken 3. Hydrogen Leak 4. Dirty Burner Chamber 5. Air Flow Restricted
No Power to Pump	1. Low Battery 2. Short Circuit
Hydrogen Leak (Instrument Not in Use)	1. Leak in Regulator 2. Leak in Valves

To be performed by qualified technician only.

A. No meter response in any switch position (including BATT CHK).

1. Broken meter movement

a. Tip instrument rapidly from side to side. Meter needle should move freely, and return to zero.

2. Electrical connection to meter is broken

b. Check all wires leading to meter and clean the contacts of quick-disconnects.

3. Battery is completely dead.

a. Disconnect battery and check voltage with a volt-ohm meter.

4. If none of the above solves the problem, consult the factory.

B. Meter responds in BATT CHK position, but reads zero or near zero for all others.

1. Power Supply Defective

a. Check power supply voltages per the HNu owner's manual. If any voltage is out of specification, consult the factory.

2. Input transistor or amplifier has failed.

a. Check input connector on printed circuit board. The input connector should be firmly pressed down.

b. Check components on back side of printed circuit board. All connections should be solid, and no wires should touch any other object.

c. Check all wires in readout for solid connections.

ATTACHMENT C
SHIPPING

Since the OVA-128 contains hydrogen, it is subject to shipping restrictions.

As Personal Luggage

The OVA-128 can be taken on a plane as luggage as a permit has been issued from the Department of Transportation (DOT) to the manufacturer (Foxboro).

Air Express

The following labels must be affixed to both sides of the VA case when shipping OVA by Air Express.

1. Danger - Peligro
2. Flammable Gas
3. Inside Container Complies with DOT Regulations
4. Hydrogen UN #1049
5. Name and Address of Recipient

A hazardous air bill must be filled out. The following information is requested.

Proper Shipping Name	Hydrogen
Classification	Flammable Gas
I.D. No.	UN 1049
Net Quantity	75 Cubic Centimeter

In addition, the shipping's certification must be signed and marked CARGO AIRCRAFT ONLY.

Excerpt from **Table 2: Chemical Hazard Information (HASP, ARCADIS 2010) – Updated for Lead and PNA Excavation Activities.**

Chemical Name	IP (eV)	Routes of Entry/ Exposure Symptoms	8-hr TWA[1] (ppm or mg/m3)	IDLH (NIOSH) (ppm)	STEL (ppm)
Lead	NA	Inhalation, Ingestion, Contact with Skin/Eyes. Lassitude, insomnia; facial pallor, low-weight, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis of the wrists and ankles; encephalopathy; kidney disease; irritation of the eyes; hypotension.	0.05 mg/m3	100 mg/m3	NA
Coal Tar Pitch Volatiles	NA	Inhalation, skin and/or eye contact. Symptoms- dermatitis, bronchitis, [potential occupational carcinogen]	0.2 mg/m3	80 mg/m3	NA
Naphthalene	8.12	Inhalation, skin absorption, ingestion, skin and/or eye contact. Symptoms irritation eyes; headache, confusion, excitement, malaise (vague feeling of discomfort); nausea, vomiting, abdominal pain; irritation bladder; profuse sweating; jaundice; hematuria (blood in the urine), renal shutdown; dermatitis, optical neuritis, corneal damage	10 ppm	250 ppm	15 ppm
2-methylnaphthalene	NA	Inhalation and Ingestion. Inhalation symptoms – cough. Contact with eyes will cause redness and pain.	0.5 ppm	NA	NA

TWAs are ACGIH 8 hr-TLVs unless noted.

Excerpt from Table 3: **Exposure Monitoring Requirements (HASP, ARCADIS 2010) – Updated for Lead and PNA Excavation Activities.**

Exposure Hazard	Monitoring Equipment	Monitoring Frequency	Action Level	Required Action
VOCs	Photo ionization detector (PID) (10.6 eV lamp or greater)	Continuous in Breathing Zone/Work Zone	≤ 0.5 ppm > 0.5 ppm ≥ 2.5 ppm > 5 ppm	- Normal operations - Begin Monitoring with colorimetric tubes - Upgrade to level C PPE - Stop work and investigate cause of reading; contact SSO/PM
PNAs	Flame Ionization detector (FID)	Continuous in Breathing Zone/Work Zone of PNA Excavation Area	≤ 0.5 ppm > 0.5 ppm ≥ 2.5 ppm	Normal operations - Upgrade to level C PPE - Stop work and investigate cause of reading; contact SSO/PM
Benzene	Colorimetric tube	As dictated by total VOC action level above	≤ 0.5 ppm > 0.5 ppm, ≤ 1.0 ppm > 1.0 ppm	- Normal operations - Upgrade to level C PPE - Stop work and investigate cause of reading; contact SSO/PM
Vinyl Chloride	Colorimetric tube	As dictated by total VOC action level above	≤ 0.5 ppm > 0.5 ppm, ≤ 1.0 ppm	- Normal operations - Stop work and investigate cause of reading; contact SSO/PM.
Particulate	MIE PDR 1000 Data RAM	Continuous in Breathing Zone	0 to 0.05 mg/m^3 0.05 to 0.2 mg/m^3 > 0.2 mg/m^3	- Normal operations. - Implement wetting procedures or appropriate engineering controls to reduce. - Stop work activity, reassess hazards. Contact ARCADIS SSO/PM.

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Appendix B

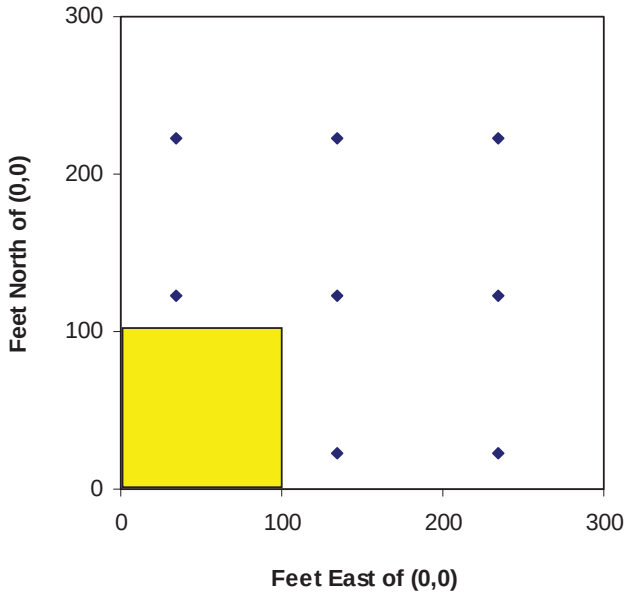
Excerpt from Section 2.4.2.2 of the 202 Michigan Department of Environmental Quality Sampling Strategies and Statistics Training Materials Plan

2.4.2.2 Systematic *RANDOM* Sampling

A preferable alternative to simple *RANDOM* sampling is systematic *RANDOM* sampling. This sampling design consists of dividing the total area to be sampled into subsections based on the number of samples to be collected (e.g., for nine samples, divide the total area into nine subsections) and *RANDOMLY* selecting a starting point within the first subsection. Subsequent sampling locations are then identified on a grid that is anchored at the starting point. The grid nodes represent locations to be sampled and all nodes are located based on the first *RANDOMLY*-selected location.

Figure 2.3 illustrates how systematic *RANDOM* sampling works. First, a 300 ft x 300 ft area was divided into nine subsections of equal area (100 ft x 100 ft). A point was *RANDOMLY* selected from the lower left cell of the *EXPOSURE UNIT*. Subsequent samples were identified systematically using a 100 ft grid extended from the first point.

Figure 2.3 Systematic *RANDOM* Sample of Nine Observations Collected from a 300 ft x 300 ft *EXPOSURE UNIT*.



The shaded area represents the cell from which the first sample was *RANDOMLY* selected.

The advantages of this design are numerous. First, it results in a *RANDOMIZED* sample from the population, thus satisfying the statistical requirements. Second, once the first location has been selected, locating the remaining sample locations is relatively straightforward and doesn't require a computer or GPS system. Third, because the coverage is fairly uniform, most of the *EXPOSURE UNIT* will be sampled and the likelihood of missing a large *HOT SPOT* is reduced. Furthermore, since sample locations are identified using a grid, statistical tools described in the tabbed section titled, "Identification and Consideration of *HOT SPOTS*," may be used to estimate the size of a *HOT SPOT* that might be identified (or missed) using this sampling approach. However, there is a danger that, if contamination occurs with some pattern, samples located on

a grid could systematically "miss" the contamination. If this is a concern, use of an unaligned grid (Gilbert, 1987, page 93) should be considered.

To determine the grid spacing, first determine the number of samples that are to be collected. The recommended minimum number is nine, based on statistical considerations only. Additional samples may be necessary to adequately represent spatial variability in the *EXPOSURE UNIT*. Next, use the following equation to determine an approximate grid interval:

$$\text{Grid Interval} = \sqrt{\frac{Area}{n}}$$

Where *Area* represents the total area of the *EXPOSURE UNIT* and *n* represents the number of samples that are to be collected.

The grid interval equation given above provides a rough approximation to a reasonable grid interval. The unique shape and size of the *EXPOSURE UNIT*, as well as the number of samples to be collected, will influence what the appropriate grid interval should be and where samples should be collected. The aim of systematic *RANDOM* sampling is to evenly cover the sampled area while collecting a *RANDOM* sample. Judgment must be used to decide on a sampling plan that is appropriate for individual *EXPOSURE UNITS*.

Example 2.9 Systematic *RANDOM* Sampling

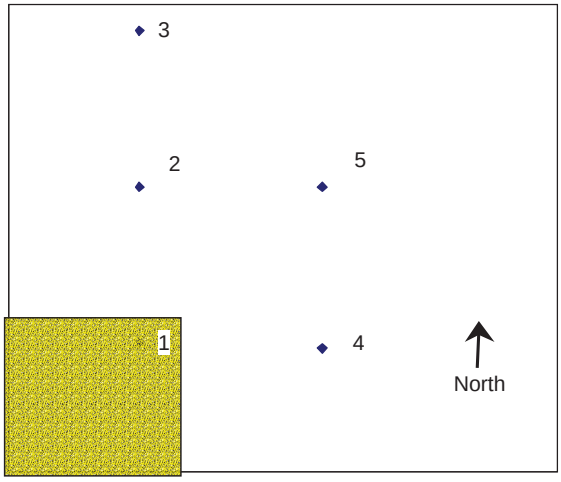
Figure 2.4 represents a square *EXPOSURE UNIT* of approximately two acres (i.e., 300 ft x 300 ft). Suppose that nine samples are to be collected. Using the above equation, the resulting grid interval is 100 ft. The *EXPOSURE UNIT* was divided into nine subsections of equal area (100 ft x 100 ft) and a sample location was *RANDOMLY* selected from the 100 ft x 100 ft cell in the lower left corner of the *EXPOSURE UNIT*. Based on the point selected, subsequent points are collected at the nodes of a grid with the grid interval equal to 100 ft.

The initial *RANDOM* sample location within the 100 x 100 ft cell in the southwest corner of the *EXPOSURE UNIT* was obtained as follows (which corner you start from is irrelevant, but for the sake of consistency, we recommend beginning in the southwest corner). First, generate two *RANDOM* numbers between 0 and 100 using the Microsoft Excel function:

=RANDBETWEEN(L,U)

where L is the lower number (set to 0 in this case) and U is the upper number (set to 100 in this case). The results were 80 and 94. Starting from the southwest corner of the *EXPOSURE UNIT*, move 80 ft east and 94 ft north to establish the *RANDOM* starting point within the southwest cell. The remaining eight sample locations are then positioned at the nodes of a grid with a 100 ft grid interval. For example, the second sample would be located 100 ft north of the first and the third would be located 200 ft north of the first. The fourth would be located 100 ft east of the first, and the fifth would be located 100 ft north of the fourth. This process would continue until all nine systematic *RANDOM* sample locations had been identified.

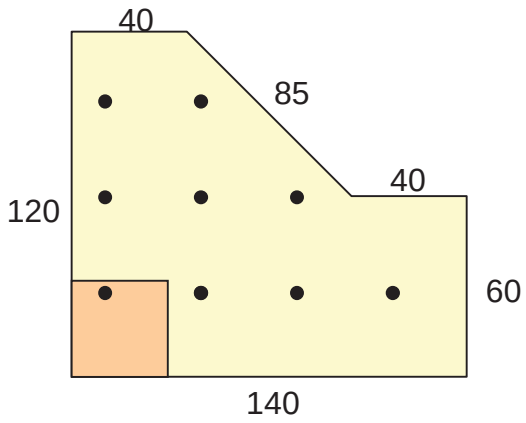
Figure 2.4 Systematic *RANDOM* Sampling of a Two Acre *EXPOSURE UNIT*



Example 2.10 Systematic *RANDOM* Sampling of an Odd-Shaped *EXPOSURE UNIT*

Figure 2.5 represents an odd-shaped *EXPOSURE UNIT* with the dimensions as listed (in feet). The first step is to determine the total area of the polygon, which is 12,600 ft^2. Suppose that nine samples need to be collected by systematic *RANDOM* sampling. Using the above equation, the approximate grid interval is 37 ft. To determine the *RANDOM* starting point, we generate two *RANDOM* numbers, 9 and 27. Starting in the lower-left corner of the polygon, we move nine ft east and 27 ft north to establish the first sample location. Subsequent samples are located on a grid anchored on the first point with a grid interval of 37 ft. If we denote the lower-left corner of the polygon as the (0,0) point on a (x, y) coordinate plane, the nine sample locations depicted are at (9,27), (9,64), (9,101), (46,27), (46,64), (46,101), (83,27), (83,64), and (120,27). Professional judgment may be used to increase the number of samples to be collected if nine samples do not appear to provide adequate coverage of an odd-shaped *EXPOSURE UNIT*.

Figure 2.5 Systematic *RANDOM* Sampling of an Odd-Shaped *EXPOSURE UNIT*



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Appendix C

Excerpts from the Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP) presented as Appendix c of the March 30, 2001 RCRA Facility Investigation Work Plan

4. General Field Protocols

4.1 Sampling

Samples will be collected at the locations and frequencies specified in the RFI Work Plan and in accordance with the procedures identified herein.

The following protocols will be employed during all sampling conducted during the RFI:

1. Prior to the collection of samples for laboratory analysis at each location, all sampling instruments and equipment must be cleaned in accordance with the protocols presented herein and in Attachment H.

2. A new pair of disposable nitrile gloves must be used for the collection of samples at each location. If, during the course of sample collection, the gloves are observed to be torn, or the gloves are suspected of being soiled from a source other than the sample media at hand, the gloves must be replaced.

3. Quality assurance samples will be collected as outlined in Section 10.

4. All personal protective equipment wastes generated during sampling, such as gloves, Tyveks, etc., will be collected and containerized for proper disposal.

5. Samples will be identified using labels affixed to the sample container. Sample labels will identify the site, sample location, sample interval (if appropriate), laboratory analysis required, preservative added, date and time of collection, and sampler's initials. A hardcover bound field book and/or field forms will be used to record the information associated with the sampling events and sample collection.

6. Sample containers and preservation requirements will be determined by the requirements of the laboratory analytical analysis. All sample containers will be provided by the laboratory and will be prepared using a standard laboratory validated washing procedure. The sample bottles will be delivered by the laboratory to the Site in sealed containers.

7. All properly labeled collected samples will be shipped to the laboratory for laboratory analysis in laboratory-supplied coolers. The coolers must be packed with ice to maintain the required preservation temperature as

identified in Section 7, any remaining space will be filled with packing to cushion the containers. Each cooler will be sealed with two seals comprised of BBL's chain of custody tape and/or the sampler's name. The coolers will then be properly sealed with packing tape.

All samples will be delivered to the laboratory by commercial courier or laboratory personnel the day of or the day following sample collection.

8. Samples will be shipped under the chain of custody procedures as outlined in Section 7.

4.2 Equipment Cleaning

Upon mobilization of the equipment on the Site, and prior to commencing work, all equipment must be thoroughly cleaned. The cleaning shall, at a minimum, consist of the use of pressurized water or steam wash to remove oil, grease, mud, and other foreign matter. The equipment will be inspected by the on-site BBL representative to check that all seals and gaskets are intact and that no fluids are leaking. After the visual inspection has been completed, the on-site BBL representative will determine if additional cleaning is required. If additional cleaning is required, the equipment will receive a thorough recleaning using pressurized water or steam wash. If a drill rig is used, the augers and tooling will be decontaminated between soil borings, as required. Soil sampling equipment will be decontaminated between samples by washing thoroughly with non-phosphate detergent and potable water using a brush to remove particulate matter or surface film, if any.

Prior to the collection of any samples for laboratory analyses, all reusable sampling equipment and tools, or dedicated equipment, will be thoroughly cleaned in accordance with the Equipment Decontamination Procedures included in Attachment H.

Upon completion of activities, the equipment will be thoroughly cleaned by pressurized water or steam wash to remove soils and other foreign matter prior to demobilization from the Site.

Fluids used for cleaning will not be recycled.

4.3 Waste Handling

All water, and excess sampling waters developed as a result of cleaning, will be placed in GM-supplied drums and stored in GM's disposal area (as required) and labeled by BBL. The material contained within the drums will be laboratory analyzed for waste characterization prior to disposal. All other waste materials developed as a result of RFI activities, such as personal protective equipment, will be placed in GM-supplied drums and stored in GM's disposal area (as required). An inventory of all drums containing waste materials will be kept by the supervising geologist.

Investigation-derived waste (IDW), including soil cuttings generated as a result of drilling and sampling will be placed in GM-supplied drums and stored in GM's disposal area (as required) and labeled by BBL. The IDW within the drums will be laboratory analyzed for waste characterization prior to disposal. All IDW generated from RFI activities will be properly disposed of by GM in accordance with appropriate protocols. An inventory of all IDW generated during the investigation will be kept by the supervising geologist.

Additional protocols specific to each sampling method are presented in the following sections.

4.4 Soil Boring Protocols

Soil borings will be completed at the locations identified in the RFI Work Plan. Soil borings will be completed using standard procedures and in accordance with the protocols identified in Section 6. Soil borings will generally be completed to the encountered water table. Representative soil samples will be typically collected in 2-foot depth intervals. Field oil-water shake tests will be conducted on soil samples in areas of known or suspected NAPL occurrence and based on visual and PID readings.

If NAPL is observed during installation of a soil boring, a monitoring well will be installed and a new soil boring(s) will be proposed nearby following the Decision Logic Flow Chart (Figure 2) of the RFI Work Plan in an attempt to delineate the extent of NAPL in the area. These new soil borings will be installed following appropriate utility clearance, and in the same manner as other planned soil borings.

Refer to Attachment D for the procedure for soil boring completion.

4.4.1 Surface Soil Sampling Procedure

Subsurface soil samples will be collected at each soil boring location identified in the RFI Work Plan. The surface soil samples will consist of the material from the ground surface (or immediately beneath the pavement) to a depth of 2 feet. Also, surface soil samples will be collected from selected locations for characterization of direct-contact criteria. The samples will consist of the 0- to 2-foot interval (only) at each location.

Refer to Attachment D for the procedure for surface soil sample collection.

4.4.2 Subsurface Soil Sampling Protocols

Subsurface soil samples will be collected at the soil boring locations identified in the RFI Work Plan. Up to three subsurface soil samples may be collected from each soil boring. The following indicates the locations of subsurface soil sample collection for each soil boring location:

- One subsurface soil sample will be collected from the 8- to 10-foot depth increment unless shallow water table conditions exist (10 feet below grade or less) in which case this sample will not be collected;
- One subsurface soil sample will be collected from the 2-foot depth increment immediately above the groundwater table; and
- Up to one other subsurface sample may be collected based on high PID reading at a boring location or visual evidence of contamination as determined by the supervising geologist.

All soil samples will be collected using the standard methods. Alternate sampling techniques may be proposed to USEPA if the identified method proves to be ineffective or is not feasible due to field constraints (e.g., limited access). Soils will be described and classified according to the Unified Soil Classification System (USCS).

The laboratory QA/QC procedures for the subsurface soil sample collection will be in accordance with Section 10.

Refer to Attachment D for the procedures for subsurface soil sample collection.

4.5 Monitoring Well Installation Procedures

Monitoring well installations will be completed at the locations identified in the RFI Work Plan. All monitoring wells will be installed and developed in accordance with Attachments B and C, and in accordance with USEPA technical guidance. Soil samples for stratigraphic definition will be collected continuously using a split-spoon or direct-push methods. In areas where dense nonaqueous phase liquid (DNAPL) is not suspected, monitoring wells will generally be screened to straddle the encountered water table with well screen lengths of either 5 or 10 feet.

In areas where DNAPL is suspected, monitoring wells will be screened below the water table such that the lower portion of the screen intersects the upper contact of the first confining unit. The well screen will be fitted with a 2-foot-long sump at the bottom of the screen and installed into the upper contact of the confining unit to allow the collection of DNAPL, if present.

A typical monitoring well installation detail is presented in Attachment B-1. An alternative detailed flushmount installation detailed is presented on Attachment B-2. A typical DNAPL monitoring well installation is presented in Attachment B-3.

Refer to Attachments B and C for the procedures for monitoring well installation and development.

4.6 Groundwater and NAPL Sampling Protocols

Groundwater samples will be collected at the locations identified in the RFI Work Plan. Following the installation and development of monitoring wells, two rounds of groundwater sampling will be conducted. The first round of groundwater sampling will consist of sampling all wells installed as part of the RFI Work Plan and those existing wells selected for additional sampling. A subsequent round of groundwater samples will be collected only from the wells where the confirmation of the presence or absence of site-specific constituents are required to address RFI objectives. All groundwater samples will be collected using standard hand-bailing or low-flow sampling methods. Refer to Attachments J and L for the procedures for groundwater sampling using hand-bailing or low-flow, respectively. Prior to the collection of groundwater samples, water level measurements will be obtained. Refer to Attachment I for the procedure for water level measurements.

If LNAPL or DNAPL are encountered in monitoring wells at the time of groundwater sampling, a representative sample of NAPL will be collected and laboratory analyzed in accordance with the RFI Work Plan. Refer to Attachment P for the procedures for LNAPL sample collection and Attachment U for DNAPL sample collection.

Hydraulic conductivity testing using the specific capacity tests procedure will be performed at selected monitoring wells. Refer to Attachment O for the procedure for specific capacity testing.

4.7 Surface Water Sampling Protocols

Surface water sampling may be performed during the RFI field activities at specific locations. These locations may include interior basements of buildings, and shafts or pits associated with buildings that may contain standing water. Procedures for the collection of surface water samples are provided in Attachment W.

4.8 Geophysical Survey

Geophysical investigation methods may be implemented during the RFI will be in accordance with the following objectives:

- Provide geophysical data to supplement soil boring and well data to delineate subsurface conditions (i.e., stratigraphy);
- Identify potential subsurface preferential pathways (i.e., Site piping/utilities) at various AOI locations; and
- Provide a supplemental method to soil borings and monitoring wells to assist in the delineation of potential NAPL areas.

These objectives will be addressed by performing a geophysical investigation consisting of ground-penetrating radar (GPR) and magnetic surveys. Performing the GPR and magnetic surveys may aid in identifying these subsurface features at the Site.

The identification and location of such features may be useful in determining the final location of proposed sampling locations and may be used to supplement the data between proposed sampling locations.

The magnetic survey may be used (if deemed necessary) in areas outside of Site buildings. Detailed operating procedures for the magnetometer are provided in Attachment R.

The GPR survey may be used (if deemed appropriate) in areas both inside and outside of Site buildings. The GPR system's data can be reviewed "real time" to assist in the field evaluation of the targeted subsurface features of interest. Detailed operating procedures for the GPR survey are provided in Attachment S.

4.9 Test Pit Excavation Procedures

The completion of test pit excavations during the RFI field activities is not planned; nevertheless, there may be a need to perform test pit excavations for the RFI program. Test pit excavations may be performed based on the need to identify subsurface structures, facilitate the collection of soil samples that cannot be collected by soil borings, and in areas requiring excavations for Interim Measure (IM) design or implementation. Refer to Attachment V for the procedure for test pit excavation.

5. Quality Assurance Objectives for Measurement Data

Data quality objectives (DQOs) are qualitative and quantitative statements that specify the quality of the data required to support decisions made during Site-related activities associated with the soil and groundwater investigations and are based on the end uses of the data to be collected as part of these programs. DQOs were developed with the intention that the data generated during field investigations will produce a representative characterization of Site conditions that will be of adequate quality and sufficient quantity to form a sound basis for decision making purposes. A DQO summary for the sampling investigation effort is presented below. The summary consists of stated DQOs relative to: data uses, data types, data quantity, sampling and analytical methods, and data measurement performance criteria.

Two data categories have been defined to address various analytical data uses and the associated QA/QC effort. A description and the methods required to achieve the desired levels of quality for each of these categories are:

Screening Data: Screening data afford a quick assessment of Site characteristics or conditions. This objective for data quality is applicable to data collection activities that involve rapid, non-rigorous methods of analysis and quality assurance. This objective is generally applied to: physical and/or chemical properties of samples; degree of contamination relative to concentration differences; and a preliminary health and safety assessment.

Definitive Data: Definitive data are generated using analytical methods, such as approved USEPA reference methods. Data are analyte-specific, with confirmation of analyte identity and concentration. Methods produce raw data (e.g., chromatograms, spectra, concentration values) in the form of paper printouts or computer-generated electronic files.

It is anticipated that both the screening and definitive data categories will be used during the investigation. Field parameters (i.e., dissolved oxygen, conductivity, temperature and pH) which will be obtained during groundwater column sampling for use in qualitatively interpreting other Site data will be determined using screening techniques. Oil-water shake testing for identification of occurrence of NAPL and PID field screening will also be used for select samples. All remaining parameters will be determined using definitive techniques.

For this project, two levels of data reporting have been defined. They are as follows:

Level 1 - Minimal Reporting: Minimal or "results only" reporting is used for analyses which, either due to their nature (i.e., field monitoring) or the intended data use (i.e., preliminary screening), do not generate or require extensive supporting documentation.

Level 2 - Full Reporting: Full "CLP-type" reporting is used for those analyses which, based on the intended data use, require full documentation (particularly to support data validation efforts). Definitive data during site characterization and delineation sampling will normally fall under this level of reporting.

A DQO summary and associated reporting levels for the field investigation activities is presented below. The summary consists of stated DQOs relative to the following items:

- Data uses;
- Data types;
- Data quantity;
- Sampling and analytical methods; and
- Measurement performance criteria.

5.1 Objectives

The purpose of this FSP/QAPP is to present specific QA/QC procedures to be implemented during Site investigation activities to provide data quality that is sufficient to meet the investigation objectives. The overall objective of the soil investigation is to provide the data necessary to complete the characterization of the Site soil and to facilitate the preparation of the final RFI reporting.

5.1.1 Soil Sampling

The overall objective of soil sampling as part of Site investigation activities is to provide the data necessary to complete the characterization of the Site areas to facilitate the preparation of the RFI reporting.

Three soil sampling tasks will be performed during the soil investigations to support this objective including:

1. Oil-water shake tests on selected samples;
2. PID headspace testing; and
3. Soil analysis sampling.

Data Uses

Oil-water shake tests will be used as a field method to evaluate for potential NAPL in subsurface soils in areas of known or suspected NAPL occurrence. PID headspace measurements will be conducted to investigate the potential presence of volatile organics in subsurface soils. Both PID and oil-water shake tests will be used for screening level and gross non-chemical specific soil analysis. Soil analysis sampling will be used to delineate, through fixed-based laboratory analysis, the potential presence of PAL VOCs, PAL SVOCs, PCBs, and PAL metals in the surface and subsurface soils. The chemical-specific analytical results will be used to determine Site potential health risks and, if necessary, to determine whether remedial actions are necessary at select areas of the Site.

Data Types

The soil investigations will include the collection and analysis of surface and subsurface soil samples that will be analyzed by a commercial analytical laboratory for PAL VOCs, PAL SVOCs, PCBs, and PAL metals. Visual examination of soil samples from various depth intervals will also be conducted to evaluate subsurface conditions at the Site. The following testing will be conducted for the three soil sampling tasks:

1. Oil-Water Shake Tests - Field shake testing for potential presence of NAPL products. The presence of a sheen will be used to indicate whether organic material is present in subsurface soils.

2. PID Headspace Measurements - Field test used to determine the gross presence of volatile organics.

3. Soil Analysis Sampling - Analytical laboratory analysis for PAL VOCs, SVOCs, PCBs, and PAL metals.

Data Quantity

Table 1 contains a summary of the number of samples to be collected and associated QC analyses for laboratory-based analyses. Oil-water shake tests will be performed at borings in areas of known or suspected NAPL occurrence. Soil samples will be collected from the 0- to 2-foot, 8- to 10-foot, and unsaturated zone immediately above the water table where the water table is at a depth 12 feet or greater. If the water table is found to be 10 feet or less, a single soil sample (in addition to the 0- to 2-foot sample) will be collected just above the water table. All soil samples will undergo PID headspace testing.

Sampling and Analytical Methods

Samples will be collected during the boring operations for each monitoring well/soil boring installation. Procedures for sample collection are presented in Attachment D. The laboratory methods to be utilized are listed in Table 1. Reporting for the oil-water shake tests and PID headspace measurements will be Level 1. Reporting for the laboratory-based PAL VOCs, PAL SVOCs, PCBs, and PAL metals analyses will be Level 2.

Measurement Performance Criteria

Precision and accuracy QC limits for chemical constituents which are used during data review to assess analytical performance are included in the analytical laboratory's (CT&E) Quality Assurance Plan (Attachment T).

Data representativeness is addressed by the sample quantities and locations included in the soil investigation program design. Data comparability is intended to be achieved through the use of standard USEPA approved methods, which are presented in Table 1. Data completeness will be assessed at the end of the soil investigation.

5.1.2 Groundwater Sampling

The overall objective of groundwater sampling as part of Site investigation activities is to provide the data necessary to complete the characterization of the Site areas to facilitate the preparation of the RFI reporting.

Groundwater samples will be collected either manually by use of a bailer or by using low-flow sampling techniques from selected existing wells and each new monitoring well installed during the investigation. During groundwater sampling, each well will be visually inspected for NAPL. Water table elevation measurements will be taken and groundwater will be tested for NAPL with a groundwater/interface probe. After the completion of the monitoring well stabilization period (approximately seven days), groundwater samples will be collected from area specific wells to characterize water quality. Additionally, in-situ grab groundwater samples (e.g., hydropunch) will be collected at locations specified in the RFI Work Plan. In-situ grab groundwater samples will be collected from area-specific locations to characterize water quality.

Data Uses

Groundwater samples will be visually inspected for product in each well sampled. Groundwater samples will be collected from select well locations to provide sufficient groundwater data for use in determining whether groundwater contamination has been delineated for areas investigated.

Data Types

Data types include both hydrogeologic and water quality data. Hydrogeologic data will consist of water level and hydraulic conductivity information which may be used to calculate other hydrogeologic parameters (gradient, flow conditions, etc.). Water quality data will consist of field parameters, including water/NAPL interface measurements, visual inspections for NAPL, conductivity, dissolved oxygen, pH, and temperature, as well as laboratory parameters for PAL VOCs, PAL SVOCs, PCBs (filtered and unfiltered), and PAL metals (filtered).

Data Quantity

The subsurface investigation activities will involve the collection of groundwater samples from select newly installed monitoring wells, select existing wells, and in-situ grab sample locations (as appropriate or determined by a specific investigation activity). Groundwater elevations will be established at all new wells and the selected existing wells used for the groundwater investigation.

Sampling and Analytical Methods

Samples will be collected using standard hand bailers or sampling pumps (e.g., peristaltic pump). Samples will be visually inspected for and be sampled for NAPL with a groundwater interface probe. Procedures for sample collection are provided in Attachment J. Section 5 contains a description of the water quality measurement procedures and groundwater sampling procedures to be followed during the groundwater investigations. Reporting for field-measured parameters will be Level 1. Reporting for laboratory analyses will be Level 2.

Measurement Performance Criteria

Precision and accuracy QC limits for chemical constituents which are used during data review to assess analytical performance are included in the analytical laboratory's (CT&E's) Quality Assurance Plan (Attachment T).

Data representativeness is addressed by the sample quantities and locations associated with groundwater investigation work activities. Data comparability is intended to be achieved through the use of standard USEPA-approved methods, which are presented in Table 1. Data completeness will be assessed at the end of the groundwater investigations.

5.1.3 Surface Water Sampling

Surface water sampling may be performed during the RFI field activities at specific locations as described below.

Data Uses

Surface water samples may be collected from select locations to provide water quality data for use in determining whether standing water contains hazardous constituents.

Data Types

Data types include only water quality data. Water quality data will consist of field parameters, including water/NAPL interface measurements, visual inspection for NAPL, pH, conductivity and temperature. Laboratory parameters will consist of PAL VOCs, PAL SVOCs, PCBs, PAL metals, and possible waste characterization data (TCLP analysis).

Data Quantity

During the RFI field activities, surface water samples may be collected at specific locations (e.g., Building 40 basement). These locations may include interior basements of buildings, and shafts or pits associated with buildings (as appropriate) that may contain standing water. The number of surface water samples to be collected and analyzed as part of the RFI field activities is anticipated to be less than 10 locations.

Sampling and Analytical Methods

Samples will be collected using standard hand bailers or sampling pumps (e.g., peristaltic pump). Procedures for the collection of surface water samples are provided in Attachment W. Surface water samples will be visually inspected for sheens or evidence of NAPL at each sample location. Reporting for field-measured parameters will be Level 1. Reporting for laboratory analyses will be Level 2.

Measurement Performance Criteria

Precision and accuracy QC limits for constituents used during data review to assess analytical performance are included in the analytical laboratory's (CT&E's) Quality Assurance Plan (Attachment T).

Data representativeness is addressed by the sample quantities and locations associated with groundwater investigation work activities. Data comparability is intended to be achieved through the use of standard USEPA-

approved methods, which are presented in Table 1. Data completeness will be assessed at the end of the groundwater investigations.

5.1.4 Nonaqueous Phase Liquid (NAPL) Sampling

NAPL sampling will be performed during the RFI field activities in areas where LNAPL or DNAPL is identified in existing or newly installed monitoring wells and in areas where analytical data are currently not available.

Data Uses

NAPL samples will be collected from select monitoring well locations to determine both physical and chemical characteristic data of the NAPL for use in determining the presence of hazardous constituents in the product, as well as physical characteristics (e.g., viscosity, specific gravity) as they pertain to NAPL recovery.

Data Types

Data types include both field parameters and laboratory data. Field data will consist of general parameters, including NAPL thickness measurements and visual inspection of the NAPL for color and general viscosity. Laboratory parameters will consist of chemical analyses for PAL VOCs, PAL SVOCs, PCBs, PAL metals, and physical analysis for viscosity, specific gravity, and interfacial tension.

Data Quantity

NAPL, if identified, will be collected at existing or newly installed monitoring wells, as appropriate, to represent areas containing NAPL where analytical data are currently not available. These locations may include select existing or newly installed well locations within interior or exterior building areas. NAPL thickness measurements and elevations will be collected at locations containing NAPL and used for the groundwater investigation.

Sampling and Analytical Methods

NAPL samples will be visually inspected for color, relative viscosity and thickness at each sample location. Samples will be collected using standard hand bailers or sampling pumps (e.g., peristaltic pump). NAPL data will consist of field parameters, including NAPL thickness measurements, and visual inspection of the NAPL for color and general viscosity. Procedures for the collection of LNAPL and DNAPL samples are provided in Attachments

P and U, respectively. Laboratory parameters will consist of chemical analyses for PAL VOCs, PAL SVOCs, PCBs, PAL metals, and physical analysis for viscosity, specific gravity, and interfacial tension. Reporting for field-measured parameters will be Level 1. Reporting for laboratory analyses will be Level 2.

Measurement Performance Criteria

Precision and accuracy QC limits for chemical and physical constituents that are used during data review to assess analytical performance are included in the analytical laboratory's (CT&E) Quality Assurance Plan (Attachment T).

Data representativeness is addressed by the sample quantities and locations associated with NAPL occurrence. Data comparability is intended to be achieved through the use of standard USEPA-approved methods. Data completeness will be assessed on an interim basis at the end of each NAPL sampling program for each AOI or facility area (as appropriate).

6. Sampling Procedures

Groundwater and soil samples will be collected as required for the soil and groundwater investigation programs. Sample tracking and identification of the investigations is part of the sampling procedures. An important aspect of sample tracking and identification is based on the ability to discern the difference between and document the origin of a number of environmental samples collected for future reference in reporting and performing an assessment of the distribution of chemical analytical results in any specific area. Detailed descriptions of the sample designation system, documentation, and reporting requirements are presented below.

6.1 Sample Designation System

A four-tier sample designation code and the sample date will provide each sample with a unique "name" or identifier. This alphanumeric system will apply to all samples collected that are to be transmitted to the laboratory for analysis. The sample designation code system includes the prefix "RFI" followed by another prefix indicating the sample location (i.e., Building 31 area) followed by a sequential number assigned at the time of installation for monitoring wells or at the installation of soil borings. These codes are followed with a depth interval in the case of soil borings, and with a date designation in the case of monitoring wells.

Example sample designation codes for groundwater samples and soil samples under this system would be RFI 70-161 (3/21/99) and 20-277 (8-10), respectively. Additional sample volumes collected for matrix spike ("MS") and matrix spike duplicate ("MSD") analysis will be noted on the chain of custody forms, and the associated additional sample containers will be labeled with the appropriate suffix ("MS" or "MSD").

6.2 Field Documentation

Field personnel will provide comprehensive documentation covering all aspects of field sampling, field analysis, and sample chain of custody. This documentation constitutes a record that allows reconstruction of all field events to aid in the data review and interpretation process. All documents, records, and information relating to the performance of the field work will be retained in the project file.

The various forms of documentation to be maintained throughout the investigation activities include:

- Daily Production Documentation - A field logbook consisting of a waterproof, bound notebook that will contain a record of all activities performed at the Site. All logbook entries will be made in pen. Any additions or corrections to the field logbook information will be single-lined out, dated, and initialed.

- Sampling Information - Detailed notes will be made as to the exact site of sampling, physical observations, personnel present, and weather conditions (as appropriate).

- Sample Chain of Custody – Chain of custody forms will provide the record of responsibility for sample collection, transport, and submittal to the laboratory. Chain of custody forms will be filled out at each sampling site, at a group of sampling sites, or at the end of each day of sampling by BBL's field personnel designated to be responsible for sample custody. In the event that the samples are relinquished by the designated sampling person to other sampling or field personnel, the chain of custody form will be signed and dated by the appropriate personnel to document the sample transfer. The original chain of custody form will accompany the samples to the laboratory and copies will be forwarded to the project files. A sample chain of custody form is included in Attachment A.

- Field Equipment, Calibration, and Maintenance Logs - To document the calibration and maintenance of field instrumentation, calibration and maintenance logs will be maintained for each piece of field equipment that is not only factory-calibrated.

6.3 Field Data Reporting

Information collected in the field through visual observation, manual measurement and/or field instrumentation will be recorded in field notebooks or data sheets, and/or on pre-prepared forms. Such data will be reviewed by the appropriate Task Manager for adherence to the specific requirements associated with the soil and groundwater investigation requirements and for consistency. Concerns identified as a result of this review will be discussed with the field personnel, corrected if possible, and as necessary, incorporated into the data evaluation process.

Where appropriate, field data forms and calculations will be processed and included in appendices to investigation reports. The original field logs, documents, and data reductions will be maintained with the project file at the BBL office in Syracuse, New York.

6.4 Sampling Methods

The project-specific scope of work is presented in detail in the RFI Work Plan. The sampling procedures for the various investigation tasks are summarized in the following subsections. Detailed field procedures are included in the attachments to this FSP/QAPP. The attachments also contain other investigation supportive procedures such as for cleaning equipment, packing, handling, executing chain of custody, shipping samples, and obtaining field measurements.

6.5 Monitoring Well and Boring Installation

New monitoring wells will be installed to augment the existing wells. Additionally, boreholes will be completed for the additional characterization of surface and subsurface soil conditions.

Shallow monitoring wells (water table wells) will be constructed of 1.5- or 2-inch-diameter, Schedule 40, machine-slotted PVC. Monitoring well installation procedures are provided in Attachment B. Prior to groundwater sample collection, all monitoring wells will be developed in accordance with the procedures described in Attachment C.

If boring refusal is encountered, either a new boring will be initiated (with the previous boring being abandoned following procedures described in Attachment D) or a tri-cone or hammer-head drill bit, or equivalent method, will be used to penetrate through the zone of refusal. If physically possible, a sample will be obtained for identification purposes from the zone of refusal. Any sheen observed during the drilling and monitoring well installation will be noted on the boring logs.

Lithologic Characterization

To provide a vertical profile of the subsurface, soil samples will be collected continuously for visual classification using split-spoon sampling methods from the ground surface to the bottom of each boring. Soil boring completion, soil sample collection, and lithologic characterization will be performed in accordance with the procedures described in Attachment D. A PID will be used to obtain PID headspace readings of each sample interval, as well as provide health and safety monitoring for field personnel during the drilling program as described in Attachment E. Oil-water shake tests will be performed on samples taken from boreholes in areas where NAPL may be present following the procedures outlined in Attachment F.

The visual descriptions of the subsurface lithology will be evaluated to assess the extent to which the geologic unit may influence migration of NAPL and dissolved-phase constituents at the Site and will provide a vertical profile of the subsurface. This information will be used to prepare detailed boring/well logs and geologic cross sections of the subsurface area. Specific details in the lithologic descriptions normally include the following:

Color/discoloration
- Fill component description (cinder, clay, metal, tires, etc.)
- Odors
- Principal components
- Contacts when observed
- Mottling/staining
- Minor Components
- Particle angularity/shape
- Weathering
- Structure and bedding
- Particle sizes

PID Measurements
- Field moisture conditions
- Moisture content
- Unified Soil Classification System group symbol
- Fill or geologic origin, if known
- Organic content
- Vertical fractures
- Sheen
- Relative cohesiveness
- Item which may indicate age of deposit (identification of archeological artifacts, newspapers, etc.)

6.6 Soil Sampling and Analysis

Soil samples will be selected for analytical characterization from samples collected during the installation of the soil boreholes. In general, three or four soil samples will be collected from each borehole in areas where the water table is 12 feet or greater below ground surface (bgs). Samples submitted for analytical laboratory testing will consist of soil collected at the following intervals: at the surface (0 to 2 feet bgs) or the remaining interval present beneath concrete pads or pavement, the 8 to 10 feet bgs interval, and at or immediately above the water table interface. In areas where the water table is found to be 10 feet or less (bgs), a single soil sample will be collected just above the water table. Additionally, one more 2-foot soil interval may be submitted for analysis if unusually high PID readings are encountered.

Soil samples will be obtained following the sampling criteria identified in Section 5 of the RFI Work Plan. Soil samples will be collected in accordance with the procedures outlined in Attachment D with samples to be submitted for VOC analysis being collected following the procedures outlined in Attachment G. These soil samples will be

used to assess potential source materials at each area where a monitoring well or borehole is installed. The soil samples will be analyzed for PAL VOCs, PAL SVOCs, PCBs, and PAL metals.

Soil samples will be identified, packaged, and shipped to the analytical laboratory using the chain of custody procedures set forth in Attachment A. Equipment decontamination will be performed in accordance with the procedures described in Attachment H.

6.7 Groundwater Sampling and Analysis

Water level measurements will be obtained from each monitoring well in accordance with procedures set forth in Attachment I. In general, measurements will be obtained with a water level probe and measured to the nearest 0.01 foot. Water levels will be converted to elevations using the surveyed measurement point (i.e., top of casing) elevations.

The water level measurements will be used to determine groundwater elevations and determine groundwater flow directions.

Groundwater samples will be collected from newly installed monitoring wells upon completion of well development and associated stabilization period. Standard hand bailing techniques or low-flow sampling will be utilized for groundwater sampling at each selected monitoring well location using sampling procedures as described in Attachment J or Attachment L.

A representative groundwater sample from each monitoring well will be collected in the field and measured for dissolved oxygen (DO), temperature, conductivity, turbidity, and pH. Specific field procedures for measurement of these water quality parameters are described in Attachment K. If low-flow purging is used, additional water quality measurements for temperature and turbidity will also be used to determine well stability and when purging is complete.

Groundwater samples will be analyzed using USEPA SW-846 methods at the laboratory for PAL VOCs, PAL SVOCs, PCBs (filtered and unfiltered), and PAL metals (filtered).

Filtered samples will be collected for PCB and metals analyses. A 0.45-micron filter will be used to filter groundwater samples for PCB and metals analyses. Filtered only groundwater samples will be collected for metals

because of the fines encountered in water accumulating in the monitoring well as a result of drilling and even sampling.

To characterize the hydraulic conductivity at selected monitoring well locations, data will be obtained during well purging consistent with specific capacity testing procedures. Specific capacity tests entail pumping a well at an approximately constant rate and measuring the drawdown inside the pumped well. To optimize the efficiency of data acquisition, specific capacity tests will be performed as part of purging prior to groundwater sampling. The relationship between the specific capacity test duration and pumping rate, the measured drawdown, and the geometry of the well intake section (wetted sand filter pack) will be used to estimate the hydraulic conductivity of the water-bearing formation surrounding the well intake section. Specific capacity testing will be performed in accordance with the procedures specified in Attachment O.

6.8 Oil/Sludge Grab Sampling Procedures

Oil/sludge samples from sumps, pits, trenches, etc., may be collected, if encountered, for chemical analysis. Oil/sludge samples may be collected utilizing a grab sampler, hand-held dredge, peristaltic pump, and/or a hand bucket auger. The specific procedures for collection of oil/sludge grab samples are presented in Attachment M.

6.9 NAPL Sampling and Passive Oil Recovery

NAPL samples may be collected to facilitate laboratory characterization of these materials. Standard procedures for the collection of NAPL samples and passive oil recovery are presented in Attachments P and U for LNAPL and DNAPL, respectively. The procedures for determining oil layer thickness in monitoring wells is presented in Attachment Q.

If NAPL is measured in any of the new wells or in any of the existing wells (associated with each subsurface investigation area) where it was not previously found and sampled, a representative sample of the liquid, if present in sufficient quantity, will be collected in place of a groundwater sample. The location and physical characteristics of the NAPL will be noted in the field logs. The NAPL will be analyzed for density, viscosity, interfacial tension, PAL VOCs, PAL SVOCs, PCBs, and PAL metals.

6.10 Magnetometer and Ground-Penetrating Radar Surveys

Magnetometer and ground-penetrating radar (GPR) procedures may be used to identify the location of buried materials, if deemed necessary during subsurface investigation activities. These surveys will be conducted following the procedures presented in Attachments R and S, respectively.

6.11 Surface Water Sampling

Surface water sampling may be performed during the RFI field activities at specific locations. These locations may include interior basements of buildings (e.g., Building 40 basement), and shafts or pits associated with buildings that may contain standing water. In general, surface water sampling will be performed using either bailers or a sampling pump (e.g., peristaltic pump). Procedures for the collection of surface water samples are provided in Attachment W.

7. Custody Procedures

7.1 Sample Containers and Preservation

Appropriate sample containers, preservation methods, and laboratory holding time requirements for planned environmental samples are shown in Table 1.

The analytical laboratory will supply appropriate sample containers and preservatives, as necessary. The bottles will be purchased pre-cleaned to USEPA Office of Solid Waste and Emergency Response (OSWER) Directive 9240.05A requirements. The field personnel will be responsible for properly labeling containers and preserving samples (as appropriate). Sample labeling procedures are described in Attachment A.

7.2 Packing, Handling, and Shipping Requirements

Sample packaging and shipment procedures are designed to ensure that the samples will arrive at the laboratory with the custody intact.

Samples will be packaged for shipment as outlined below:

- Ensure that all sample containers have the sample labels securely affixed to the container with clear packing tape;
- Check the caps on the sample containers to ensure that they are properly sealed;
- Wrap the sample container cap with clear packing tape to prevent it from becoming loose;
- Complete the chain of custody form with the required sampling information and ensure that the recorded information matches the sample labels. NOTE: If the designated sampler relinquishes the samples to other sampling or field personnel for packing or other purposes, the sampler will complete the chain of custody prior to this transfer. The appropriate personnel will sign and date the chain of custody form the document the sample custody transfer.
- Using duct tape, secure the outside drain plug at the bottom of the cooler;
- Wrap sample containers in bubble wrap or other cushioning material (not vermiculite);
- Place 1 to 2 inches of cushioning material at the bottom of the cooler;
- Place the sealed sample containers into the cooler;

- Place ice in plastic bags and seal. Place loosely in the cooler;
- Fill the remaining space in the cooler with cushioning material;
- Place chain of custody forms in a plastic bag and seal. Tape the forms to the inside of the cooler lid;
- Close the lid of the cooler, lock, and secure with duct tape;
- Wrap strapping tape around both ends of the cooler at least twice;
- Mark the cooler on the outside with the following information: shipping address, return address, "Fragile" labels, and arrows indicating "this side up." Cover the cooler label with clear plastic tape. Place a signed custody seal over the cooler lid.

All samples will be packaged by the field personnel and transported as low-concentration environmental samples. The coolers will be hand-delivered or delivered by an express carrier to be received within 48 hours of the time of collection. All shipments will be accompanied by the chain of custody form identifying the contents. The original form will accompany the shipment; copies will be retained by the sampler for the sampling office records. If the samples are sent by common carrier, a bill of lading should be used. Receipts or bills of lading will be retained as part of the permanent project documentation. Commercial carriers are not required to sign off on the chain of custody form as long as the forms are sealed inside the sample cooler and the custody seals remain intact.

Sample custody seals and packing materials for filled sample containers will be provided by the analytical laboratory. The filled, labeled, and sealed containers will be placed in a cooler on ice and carefully packed to eliminate the possibility of container breakage. Trip blank(s) of analyte-free water will be provided by the laboratory and included in each cooler containing aqueous samples to be analyzed for VOCs.

General procedures for packing, handling, and shipping environmental samples are included in Attachment A and in Attachment N.

7.3 Field Custody Procedures

The objective of field sample custody is to assure that samples are not tampered with from the time of sample collection through time of receipt by the analytical laboratory. Persons will have "custody of samples" when the samples are in their physical possession, in their view after being in their possession, or in their physical possession and secured so they cannot be tampered with. In addition, when samples are secured in a restricted area accessible only to authorized personnel, they will be deemed to be in the custody of such authorized personnel.

Field custody documentation consists of both field logbooks and field chain of custody forms.

7.3.1 Field Logbooks

Field logbooks will provide the means of recording data collection activities performed. As such, entries will be described in as much detail as possible so that persons going to the Site could re-construct a particular situation without reliance on memory.

Field logbooks will be bound field survey books or notebooks. Logbooks will be assigned to field personnel, but will be stored in a secure location when not in use. Each logbook will be identified by the project-specific document number. The title page of each logbook will contain the following:

- Person to whom the logbook is assigned;
- Logbook number;
- Project name;
- Project start date; and
- End date.

Entries into the logbook will contain a variety of information. At the beginning of each entry, the date, start time, weather, names of all sampling team members present, level of personal protection being used, and the signature of the person making the entry will be entered. The names of visitors to the Site, field sampling or investigation team personnel, and the purpose of their visit will also be recorded in the field logbook.

Measurements made and samples collected will be recorded. All entries will be made in ink and no erasures will be made. If an incorrect entry is made, the information will be crossed out with a single strike mark. Whenever a sample is collected, or a measurement is made, a detailed description of the location of the station shall be recorded. The number of the photographs taken of the station, if any, will also be noted. All equipment used to make measurements will be identified, along with the date of calibration of any field instruments used.

Samples will be collected following the sampling procedures documented in Section 6. The equipment used to collect samples will be noted, along with the time of sampling, sample description, depth at which the sample was collected, volume and number of containers. A sample identification number will be assigned prior to sample collection for each environmental sample. Field duplicate samples, which will receive an entirely separate sample identification number, will be noted under sample description.

Preprinted sample labels will be affixed to sample bottles prior to delivery to the sampling location. The following information is required on each sample label:

- Project;
- Date collected;
- Time collected;
- Location;
- Sampler;
- Analysis to be performed;
- Preservative; and
- Sample number.

7.3.2 Field Chain of Custody Form

Completed chain of custody forms will be required for all samples to be analyzed. Chain of custody forms will be initiated by the sampling crew in the field. The chain of custody forms will contain the sample's unique identification number, sample date and time, sample description, sample type, preservation (if any), and analyses required. The original chain of custody form will accompany the samples to the laboratory. Copies of the chain of custody will be made prior to shipment (or multiple copy forms used) for field documentation. The chain of custody forms will remain with the samples at all times. The samples and signed chain of custody forms will remain in the possession of the sampling crew until the samples are delivered to the express carrier (e.g., FedEx) or hand delivered to the fixed-based laboratory, or placed in secure storage.

Sample labels are completed for each sample using waterproof ink unless prohibited by weather conditions. The labels include sample information such as sample number and location, type of sample, date and time of sampling, sampler's name or initials, preservation, and analyses to be performed. The completed sample labels are affixed to each sample bottle and covered with clear tape.

7.4 Laboratory Custody Procedures

Upon sample receipt, laboratory personnel will be responsible for sample custody. The original field chain of custody form will accompany all samples requiring laboratory analysis. The laboratory will use chain of custody guidelines described in the USEPA guidance documents. Samples will be kept secured in the laboratory until all

stages of analysis are complete. All laboratory personnel having samples in their custody will be responsible for documenting and maintaining sample integrity. The selected commercial analytical laboratory's custody procedures are described in the CT&E Quality Assurance Plan (QAP) (Attachment T).

7.4.1 Sample Receipt and Storage

Immediately upon sample receipt, the laboratory sample custodian will verify the package seal, open the package, and compare the contents against the field chain of custody. If a sample container is received broken, the sample is in an inappropriate container, or has not been preserved by appropriate means, BBL will be notified. The laboratory sample custodian will be responsible for logging the samples in, assigning a unique laboratory identification number to each sample, labeling the sample bottle with the laboratory identification number, and moving the sample to an appropriate storage location to await analysis. The project name, field sample code, date sampled, date received, analysis required, storage location and date, and action for final disposition will be recorded in the laboratory logbook. All relevant custody documentation will be placed in the project file.

7.4.2 Sample Analysis

Analysis of an acceptable sample will be initiated by laboratory documentation that contain all pertinent information for analysis. The analyst will sign and date the laboratory chain of custody form when removing the samples from storage.

Samples will be organized into sample delivery groups (SDGs) by the laboratory. A SDG may contain up to 20 field samples (field duplicates, trip blanks, and rinse blanks are considered field samples for the purposes of SDG assignment). All field samples assigned to a single SDG shall be received by the laboratory over a maximum of fourteen calendar days and must be processed through the laboratory (preparation, analysis, and reporting) as a group. Every SDG must include a minimum of one site-specific matrix spike/matrix spike duplicate or MS/Dup pair, which shall be received by the laboratory at the start of the SDG assignment.

Each SDG will be self-contained for all of the required QC samples. All parameters within an SDG will be extracted or prepared and analyzed together in the laboratory. At no time will the laboratory be allowed to run any sample (including QC samples) at an earlier or later time than the rest of the SDG. These rules for analysis will ensure that the QC samples for an SDG are applicable to the field samples of the same SDG and that the best possible comparisons may be made.

7.4.3 Sample Storage Following Analysis

All samples will be maintained by the laboratory for one month after the final report is delivered to BBL. After this period, the samples will be disposed of in accordance with applicable rules and regulations.

10. Internal Quality Control Checks

The overall quality assurance objective for this FSP/QAPP is to develop and implement procedures for sampling, chain of custody, laboratory analysis, instrument calibration, data reduction and reporting, internal QC, audits, preventive maintenance, and corrective action, such that valid data will be generated. These procedures are presented or referenced in the sections of the FSP/QAPP. General field QC checks and laboratory QC checks related to the sampling and analysis planned for these investigations are discussed below. QA/QC limits for laboratory and field QC checks are presented in Table 4.

10.1 Field Quality Control Checks

10.1.1 Field Measurements

To verify the quality of data using field instrumentation, duplicate measurements will be obtained and reported for all field measurements. A duplicate measurement will involve obtaining measurements a second time at the same sampling location. Both results will be recorded in field logs.

10.1.2 Sample Containers

New, certified-clean sample containers (I-Chem 300 series or equivalent) will be supplied by the analytical laboratory. Certificates of analysis demonstrating these containers to be analyte-free will be filed in the project file.

10.1.3 Field Duplicates

Field duplicates will be collected for groundwater and soil samples to check reproducibility of the sampling methods. In general, soil and groundwater sample field duplicates will be analyzed at a 5% frequency (every 20 samples) for the chemical constituents. Specific sampling procedures for collecting field duplicates are included in the appropriate attachments.

10.1.4 Rinse Blanks

Rinse blanks are used to monitor the cleanliness of the sampling equipment and the effectiveness of the cleaning procedures used. Rinse blanks will be prepared and submitted for analysis at a frequency of one per day (when sample equipment cleaning occurs) or once for every 20 samples collected, whichever is more. Rinse blanks will be prepared by filling sample containers with analyte-free water (supplied by the laboratory) which has been routed through a cleaned sampling device. When dedicated sampling devices are used or sample containers are used to collect the samples, rinse blanks will not be necessary.

10.1.5 Trip Blanks

Trip blanks will be used to assess whether samples have been exposed to volatile constituents during sample storage and transport. Trip blanks will be analyzed at a frequency of one per cooler containing groundwater samples to be analyzed for volatile organic constituents. A trip blank will consist of a container filled with analyte-free water (supplied and prepared by the laboratory) which remains unopened with field samples throughout the sampling event. Trip blanks will only be analyzed for volatile organic constituents.

10.2 Laboratory Quality Control Checks

Internal laboratory QC checks will be used to monitor data integrity. These checks will include method blanks, matrix spikes (and matrix spike duplicates), spike blanks, internal standards, surrogate spikes, calibration standards, and reference standards. Project QC limits for duplicates and matrix spikes are identified in Table 4. Laboratory control charts will be used to determine long-term instrument trends.

10.2.1 Method Blanks

Sources of contamination in the analytical process, whether specific analytes or interferences, need to be identified, isolated, and corrected. The method blank is useful in identifying possible sources of contamination within the analytical process. The laboratory will analyze blank samples as a check on possible sample collection, preparation, and analytical background interferences or contamination. At a minimum, one method blank will be prepared and analyzed with each analytical series associated with no more than 20 samples.

Attachment A

BLASLAND, BOUCK & LEE, INC.
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Sample Handling, Packing, and Shipping Procedures

Attachment A

Sample Handling, Packing, and Shipping Procedures

I. Chain of Custody Procedures

1. Prior to collecting samples, complete the chain of custody form (Attachment A-3) header information by filling in the project number, project name, and the name(s) of the sampling technician(s). Please note that it is important that chain of custody information is printed legibly using indelible ink.

2. After sample collection, enter the individual sample information by filling in the following chain of custody fields:

   a. STA. NO. - Indicates the station number or location that the sample was collected from. Appropriate values for this field include well locations, grid points, or soil boring identification numbers (e.g., MW-3, X-20, SB-30, etc.).

   b. Date - Indicates the date that the sample was collected. The date format to be followed should be mm/dd/yyyy (e.g., 03/07/2000).

   c. Time - Indicates the time at which the sample was collected. The time value should be presented using the military format. For example, 3:15 P.M. should be entered as 15:15.

   d. Comp - This field should be marked with an "X" if the sample was collected as a composite.

   e. Grab - This field should be marked with an "X" if the sample was collected as an individual grab sample.

   f. Station Location - This field should represent the complete sample name. Although, in some instances it may be similar to the STA. NO. field. An example of a complete sample name is SB-3 (0.5-1.0), where the 0.5-1.0 represents the depth interval in feet from where the sample was collected. Please note that it is very important that the use of hyphens in sample names and the depth units (i.e., feet or inches) remain consistent for all samples entered on the chain of custody form. Sample names may also use the abbreviations "MS/MSD", "FB", "TB", and "DUP" as prefixes or suffixes to indicate that the sample is a matrix spike/matrix spike duplicate, field blank, trip blank, or field duplicate, respectively.

   g. Number of Containers - This field represents the number of containers that were collected at the sampling location to be submitted for analysis.

   h. Analytical Parameters - The analytical parameters that the samples are being analyzed for should be written legibly on the diagonal lines to the right of the "number of containers" column. The analytical parameters should be chosen from those presented in Table 1 of the FSP/QAPP. As much detail as

possible should be presented to allow the analytical laboratory to properly analyze the samples. For example, polychlorinated biphenyls (PCBs) analyses may be represented by entering "PCBs" or Method 8082." Multiple methods and/or analytical parameters may be combined for each column (e.g., PCBs/VOCs/SVOCs or 8082/8260/8270). These columns should also be used to present project specific parameter lists (i.e., Appendix IX excluding herbicides and pesticides). QA/QC information may also be entered in a separate column for each parameter (e.g., PCBs - MS/MSD) to identify a sample that the laboratory is to use for a specific QA/QC requirement. Each sample that requires a particular parameter analysis will be identified by placing an "X" in the appropriate analytical parameter column.

i. Remarks - The remarks field should be used to communicate special analytical requirements to the laboratory. These requirements may be on a per sample basis such as "extract and hold sample until notified" or may be used to inform the laboratory of special reporting requirements for the entire SDG. Reporting requirements that should be specified in the remarks column include: 1) turn around time, 2) required detection limits, 3) contact and address where data reports should be sent, 4) name of laboratory project manager, and 5) type of sample preservation that was utilized.

j. Relinquished By - This field should contain the signature of the sampling technician that relinquished custody of the samples to the shipping courier or the analytical laboratory.

k. Date - Indicates the date that the samples were relinquished. The date format should be mm/dd/yyyy (e.g., 03/07/2000).

l. Time - Indicates the time that the samples were relinquished. The time value should be presented using the military format. For example, 3:15 P.M. should be entered as 15:15.

m. Received By - This field should contain the signature of the sample courier or laboratory representative that received the samples from the sampling technician.

3. Complete as many chain of custody forms as necessary to properly document the collection and transfer of the samples to the analytical laboratory.

4. Upon completion of the chain of custody forms, forward two copies to the analytical laboratory and retain one for the field records. The field records copy should also be sent to Ms. Jessica Whisher at BBL by facsimile at (315) 449-0017.

II. Handling

1. After completing the sample collection procedures, record the following information in the field notebook with indelible ink:

   - Project number and site name;
   - Sample identification code and other sample identification information, if appropriate;
   - Sampling method;

- Date;
- Name of sampler(s);
- Time;
- Location (project reference); and
- Any comments.

2. Fill in sample label (Attachment A-1) with the following information in indelible ink:

   - Sample matrix (e.g., groundwater);
   - Project number and site name;
   - Sample identification code and other sample identification information, if applicable;
   - Analysis required;
   - Date;
   - Time sampled;
   - Initials of sampling personnel;
   - Sample type (composite or discrete);
   - Tissue preparation procedure (biota; e.g., fillets, whole body), if applicable; and
   - Preservative added, if applicable.

3. Cover the label with clear packing tape to secure the label onto the container.

4. Check the caps on the sample containers to ensure that they are tightly sealed.

5. Wrap the sample container cap with clear packing tape to prevent it from becoming loose.

6. Place a signed custody seal label (Attachment A-2) over the cap such that the cap cannot be removed without breaking the custody seal. Alternatively, if shipping several containers in a cooler, custody seal evidence tape may be placed on the shipping container as described below.

III. Packing

1. Using duct tape, secure the outside and inside of the drain plug at the bottom of the cooler that is used for sample transport.

2. Place each container or package in individual polyethylene bags (resealable-type) and seal. If a cooler temperature blank is supplied by the laboratory, it should be packaged following the same procedures as the samples. If the laboratory did not include a temperature blank, do not add one, since the sample temperature will be determined by the laboratory using a calibrated infrared thermometer.

3. Place 1 to 2 inches of cushioning material (i.e., vermiculite) at the bottom of the cooler. See Section 6.

4. Place the sealed sample containers upright in the cooler.

5. Package ice or blue ice in small resealable-type plastic bags and place loosely in the cooler. Do not pack ice so tightly that it may prevent addition of sufficient cushioning material. Samples placed on ice will be cooled to and maintained at a temperature of approximately 4°C.

6. Fill the remaining space in the cooler with cushioning material.

7. Place the completed chain of custody forms (Attachment A-3) in a large resealable-type bag and tape the bag to the inside of the cooler lid.

8. Close the lid of the cooler and fasten with packing tape.

9. Wrap strapping tape around both ends of the cooler.

10. Mark the cooler on the outside with the following information: shipping address, return address, "Fragile" labels (Attachment A-4) on the top and on one side, and arrows indicating "This Side Up" (Attachment A-4) on two adjacent sides.

11. Place custody seal evidence tape (Attachment A-2) over front right and back left of the cooler lid and cover with clear plastic tape.

Note: Procedure numbers 2, 3, 5, and 6 may be modified in cases where laboratories provide customized shipping coolers. These coolers are designed so the sample bottles and ice packs fit snugly within preformed styrofoam cushioning and insulating packing material.

IV. Shipping

All samples will be delivered by an express carrier within 48 hours of sample collection. Alternatively, a laboratory courier may be used for sample pickup. If parameters with short holding times are being analyzed [e.g., VOCs (EnCore™ Sampler)], sampling personnel will take precautions to assure that the maximum holding times for these parameters will not be exceeded.

The following chain of custody procedures will apply to sample shipping:

- Relinquish the sample containers to the laboratory via express carrier or laboratory courier. The signed and dated forms should be included in the cooler. The express carrier will not be required to sign the chain of custody forms.

- When the samples are received by the laboratory, the laboratory personnel shall complete the chain of custody by recording the date and time of receipt of samples, measure and record the internal temperature of the shipping container, and then check the sample identification numbers on the containers to ensure that they correspond to the chain of custody forms.

Attachment A-1

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Sample Label

BBL
BLASLAND, BOUCK & LEE, INC.
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PROJECT #		
SAMPLE I.D.		DATE
SAMPLE TYPE ☐ Soil/Sediment ☐ Water	COLLECTION MODE ☐ Composite ☐ Grab	TIME
ANALYSIS		
SAMPLER(S)	PRESERVATIVE	

Attachment A-2

BLASLAND, BOUCK & LEE, INC.
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Custody Seal Label

CUSTODY SEAL

BBL

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

6723 Towpath Road, Box 66, Syracuse, N.Y. 13214-0066
TEL (315) 446-9120

SEALED BY

_____

DATE_____ TIME _____

Attachment A-3

BLASLAND, BOUCK & LEE, INC.
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Chain of Custody Form

BLASLAND, BOUCK & LEE, INC.
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
SAMPLERS: *(Signature)*	

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	REMARKS

Relinquished by: *(Signature)*	DATE	TIME	Received by: *(Signature)*	Relinquished by: *(Signature)*	DATE	TIME	Relinquished by: *(Signature)*
Relinquished by: *(Signature)*	DATE	TIME	Received by: *(Signature)*	Relinquished by: *(Signature)*	DATE	TIME	Relinquished by: *(Signature)*
Relinquished by: *(Signature)*	DATE	TIME	Received for Laboratory by: *(Signature)*	DATE	TIME	Remarks:	

10/23/95
5951188L.CDR

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Attachment A-4

BLASLAND, BOUCK & LEE, INC.
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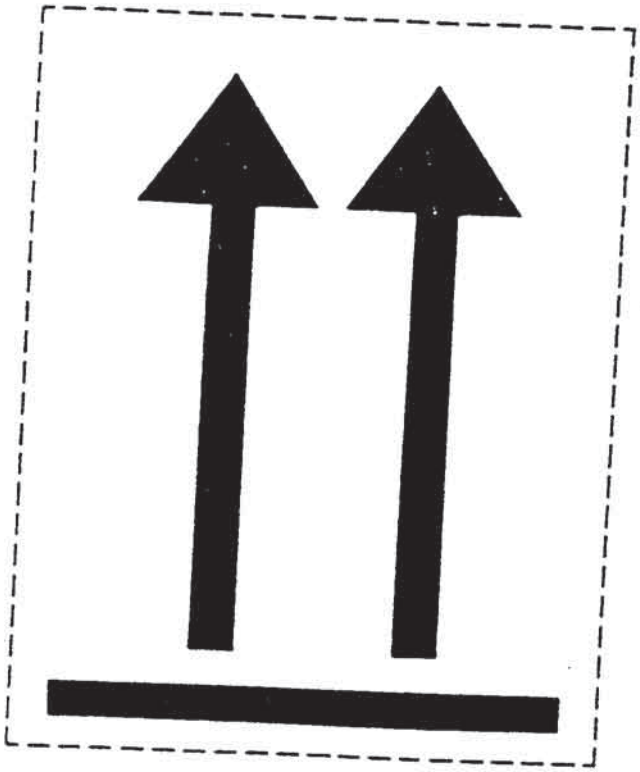
Shippers Certification for Restricted Articles


fragile
HANDLE
WITH CARE



Attachment D

BLASLAND, BOUCK & LEE, INC.
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Procedures for Soil Boring Completion and Sample Collection

Attachment D

Procedures for Soil Boring Completion and Sample Collection

I. Introduction

Soil borings typically will be completed using direct-push techniques (e.g., Geoprobe®) or using the hollow-stem auger drilling method. No oils or grease will be used on equipment introduced into the boring (e.g., drill rod, casing, or sampling tools, etc.). Prior to beginning work, all underground utilities will be delineated by GM or an independent underground utility locator service approved by GM.

II. Equipment Cleaning

Equipment will be cleaned prior to use on the site, between each drilling location, and prior to leaving the site. All drilling equipment and associated tools, including direct-push tooling, augers, drill rods, sampling equipment, wrenches, and other equipment or tools that may have come in contact with soils and/or waste materials, will be cleaned with steam-cleaning equipment using a potable water source. The drilling equipment will be cleaned in an area designated by the supervising engineer or geologist that is approved by GM. More detailed equipment cleaning procedures are provided in Appendix H.

III. Drilling Procedures, Equipment, and Records

All equipment and materials that may be required to advance the soil borings and sample encountered materials, as described, will be available during the boring and sampling operations. Required equipment and materials include drilling machinery in good working order equipped for the season of operation; sample containers and forms; sampling, screening, and cleaning equipment and supplies; and supplies and equipment to comply with all site and Health and Safety procedures.

The drilling contractor will be responsible for obtaining accurate and representative samples, informing the supervising geologist of changes in drilling conditions, and keeping a separate general log of soils encountered, including blow counts (i.e., the number of blows from a soil sampling drive weight [140 pounds] required to drive the split-barrel sampler in 6-inch increments). Records will also be kept of occurrences of premature refusal due to boulders or construction materials which may have been used as fill. Where a boring cannot be driven to the desired depth, equipment will be relocated in order to obtain the required sample. Multiple refusals may lead to a decision by the supervising geologist to abandon that sampling location.

The supervising geologist will be responsible for documenting drilling events using a daily field log (Attachment D-1) to record all relevant information in a clean and concise format. As an alternative, a bound field notebook may be used at the discretion of field personnel to document field activities, provided that the information shown on the Attachment D-1 is concisely presented in the notebook. The record of drilling events will include: 1) start and finish dates of drilling; 2) name and location of project; 3) project number, client, and site location; 4) sample number and depths; 5) blow counts and recovery; 6) depth to water; 7) type of drilling method; 8) auger size;

9) documentation of any elevated organic vapor emissions; 10) names of contractor's drillers, inspectors, or other people on site; and 11) weather conditions.

The direct-push drilling method also may be used to complete soil borings and monitoring wells. Examples of this technique include the Diedrich ESP vibratory probe system or AMS Power Probe™ dual-tube system. Environmental probe systems typically use a hydraulically operated percussion hammer. Depending on the equipment used, the hammer delivers 140 to 350 foot pounds of energy with each blow. The hammer, operated at 1,200 blows per minute, provides the force needed to penetrate very stiff/medium dense soil formations. The hammer simultaneously advances an outer steel casing which contains a dual tube liner for sampling soil. Depending on the system utilized, the outside diameter (OD) of the outer casing ranges from 1.75 to 2.4 inches, and the OD of the inner sampling tube ranges from 1.1 to 1.8 inches. The outer casing isolates shallow layers and permits the unit to continue to probe at depth. The double-rod system provides a borehole that may be tremie grouted from the bottom up. Alternatively, the inside diameter (ID) of the steel casing provides clearance for the installation of small diameter (e.g., 0.75- to 1.5-inch ID) wells. Upon completion of the borehole to the desired depth, the well is installed through the inner drill casing. The wells will consist of approximately 1.5-inch ID PVC slotted screen and blank riser. In areas of suspected DNAPL or highly chlorinated constituents, 2-inch stainless steel monitoring wells will be installed using conventional hollow-stem auger drilling methods.

Following the completion of soil sampling, all borings that are not being converted to monitoring wells will be tremie-grouted using neat cement and 5% bentonite mix. Also, if boring refusal is encountered and the boring location is abandoned, the boring will be tremie-grouted using neat cement and bentonite.

IV. Soil Sampling

Samples of subsurface materials encountered during the drilling of soil borings will be collected continuously with a 2-inch split-barrel (split-spoon) sampler (using ASTM Method D1586) or direct-push methods at select locations, as directed by the supervising geologist. Soil samples will be field screened with a PID.

Representative split-spoon or direct-push samples will be fully described on a soil boring description log (Attachment D-2) or in the field notebook.

Those samples selected for laboratory analysis will be handled, packed, and shipped in accordance with the procedures set forth in Attachment A.

Samples collected for Analysis of volatile organic compounds (VOCs) will be collected from the split-spoon using an EnCore™ Sampler as described in Attachment G. A geologist will be on site during drilling and sampling operations to fully describe each soil sample on the soil boring log including:

- Percent recovery;
- Structure and degree of sample disturbance;
- Soil type;

- Color;
- Moisture condition;
- Density;
- Grain size;
- Consistency; and
- Any other observations, particularly relating to the presence of waste materials or contaminants.

Particular care will be taken to fully describe any sheens observed, oil saturation, evidence of other organic chemicals, or unnatural materials.

V. Disposal Methods

All water generated during cleaning procedures will be collected and contained on site in labeled 55-gallon drums for future analysis and appropriate disposal.

Personal protective equipment, such as gloves, disposable clothing, and other disposable equipment, resulting from personnel cleaning procedures and from soil sampling and handling activities, will be placed in plastic bags. These bags will be transferred into appropriately labeled 55-gallon drums for appropriate disposal.

Soil materials will be placed in labeled sealed 55-gallon steel drums and stored in a secured area. Once full, the material will be analyzed to determine the appropriate disposal method.

Attachment D-1

BLASLAND, BOUCK & LEE, INC.
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Daily Field Report

Date: _____

S	M	T	W	T h	F	S

PROJECT _____

JOB. NO. _____

CLIENT _____

CONTRACTOR _____

PROJECT MANAGER _____

WEATHER _____

TEMP. _____

WIND _____

HUMIDITY _____

FIELD TEAM	
NAME	REMARKS
NAME	REMARKS

VISITORS		
TIME	REPRESENTING	REMARKS

EQUIPMENT AT THE SITE

FIELD ACTIVITIES

BY _____ TITLE _____

Attachment D-2

BLASLAND, BOUCK & LEE, INC.
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Soil Boring Log

Date Start/Finish: / Drilling Company: Driller's Name: Drilling Method: Bit Size: Auger Size : Rig Type: Spoon Size:	Northing: Easting: Well Casing Elev.: ft. Corehole Depth: ft. Borehole Depth: ft. Ground Surface Elev.: ft. Descriptions by:	Well No. Client: Site:

DEPTH / ELEVATION	Sample Depth / Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									GROUND SURFACE	
5										
10										
15										

Remarks:

Water Levels		
Date / Time	Elevation	Depth

Project:

Script: BBL-wel2
Date: 10/15/98

Attachment H

BLASLAND, BOUCK & LEE, INC.
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Equipment Decontamination Procedures

Attachment H

Equipment Decontamination Procedures

I. Introduction

Decontamination areas for smaller equipment to be washed by hand will generally be set up adjacent to the individual work areas, as described in the Site Health and Safety Plan (HASP). A steam-cleaning station and pad for containing rinse water will be set up within the Site in a peripheral location that will not interfere with sampling activities. The equipment decontamination procedures include pre-field, in the field, and post-field cleaning of sampling equipment. The sampling equipment includes all non-disposable equipment potentially coming in contact with contaminated materials. The nondisposable equipment will be decontaminated after the completion of each sampling event. All rinse water will be contained and appropriately disposed of.

II. Typical Equipment Decontamination Materials List

- Distilled/deionized water
- Non-phosphate soap
- Tap water
- Appropriate cleaning solvent (e.g., hexane, methanol)
- Nitric acid
- Wash basins
- Brushes
- Plastic sheeting
- Aluminum foil
- Large heavy-duty garbage bags
- Spray bottles
- Ziploc®-type bags
- Handiwipes
- Disposable gloves

III. Storage of Equipment

All sampling equipment will be stored in a clean environment and, where appropriate, the equipment will be covered in aluminum foil after cleaning prior to use.

IV. Safety Procedures During Equipment Decontamination

1. Personnel will wear the following safety equipment when cleaning smaller sampling equipment (e.g., split-spoons, trowels);

   - Safety glasses, goggles, and/or a splash shield;
   - Coveralls;
   - Waterproof cover boots; and
   - PVC or nitrile outer gloves.

   Additional personal protective equipment (PPE) may be required based on the results of field screening, as described in the HASP.

2. Personnel will wear the following additional safety equipment when cleaning larger equipment with a high-pressure water/stream cleaning unit (i.e., drilling rig backhoe):

   - Laminated-type Tyvek™ disposable coveralls (e.g., Saranex™); and
   - Chemical-resistant overboots.

3. All solvent rinsing will be conducted in an adequately ventilated area.

4. All solvent transported into the field will be stored and packed in appropriate containers with care taken to avoid extreme heat.

5. Handling of solvents will be conducted in accordance with the manufacturer's Material Safety Data Sheets (MSDSs).

V. Field Decontamination Procedures

1. Decontamination Station

   The steam-cleaning station will be located within the site in a peripheral area. In addition, wash stations for the decontamination of smaller equipment will be established as necessary outside of the individual work zones.

   All equipment, such as drill rigs and other mobile equipment, will receive an initial decontamination prior to use at the site. The frequency of subsequent decontamination while on site will depend on how the equipment is actually used in relation to taking environmental samples. All fluids and residues produced

from the decontamination procedures will be collected and stored on-site until analysis can be conducted and a decision is made regarding final disposition of the material pursuant to state and federal requirements.

2. Decontamination of Sampling Equipment

Sampling equipment (split-spoons, Hydropunch™ sampler, bailers, trowels, etc.) will be cleaned in accordance with the decontamination procedures listed in Attachment H-1. The first step, a soap and water wash, is completed to remove all visible particulate matter and residual oils and grease. (This step may be preceded by steam-cleaning to facilitate removal of residual materials.) When analyzing for organic constituents, this step will be followed by a tap water rinse to remove the detergent and a rinse sequence of solvent (e.g., hexane, methanol) and distilled/deionized water. When analyzing for inorganic constituents, the soap and water wash will be followed by a nitric acid rinse, a tap water rinse, and a distilled/deionized water rinse.

3. Decontamination of Heavy Equipment

Other equipment and materials associated with sampling tasks will be decontaminated prior to use. Items such as drill rigs and auger flights present potential sources of cross-contamination of environmental samples. These items may come into contact with the materials adjacent to the matrix being sampled or may be attached to sampling equipment which has been decontaminated in accordance with procedures set forth in Attachment H-1. Heavy equipment may potentially retain contaminants from other sources such as roadways or storage areas or have soil material from previous job sites that has not been removed. For these reasons, it is most important that these items be decontaminated prior to their use at the site.

Two options are available to accomplish decontamination of heavy equipment: steam-cleaning and manual scrubbing. The use of steam-cleaning can remove visible debris and has several advantages. Steam-cleaners provide high-pressure which is very effective for residuals removal. They are also efficient in terms of ease of handling and generate low volumes of wash solutions.

Steam-cleaning is the preferred method for decontamination of heavy equipment and will be used to decontaminate drill rigs and other heavy equipment whenever possible. Manual scrubbing of equipment will only be used if steam-cleaning fails to remove visible materials.

The drilling equipment will be thoroughly decontaminated by steam-cleaning or manual scrubbing upon initial arrival on site and between drilling locations. Drill rig items such as auger flights, drill rods, and drill bits will be decontaminated between borings.

4. Decontamination of Other Equipment

The water level probe used for water level measurements will be cleaned between each well with a soapy water wash and a distilled/deionized water rinse. The transducer and cable used during the in-situ hydraulic conductivity testing and the gamma ray logging instrument probe used during the borehole logging will be cleaned in the same manner.

Well development equipment will be cleaned with a soapy water wash, followed by a tap water rinse, a solvent rinse, and a distilled/deionized water rinse.

VI. Disposal Methods

All fluids generated during decontamination procedures will be collected and contained on site in 55-gallon drums for future analysis and appropriate disposal. Solids (e.g., disposable gloves, disposable clothing, and other disposable equipment) resulting from personal decontamination procedures will be placed in plastic bags and appropriately disposed of in 55-gallon drums or a covered roll-off container.

Attachment H-1

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Equipment Decontamination Procedure

Attachment H-1

Equipment Decontamination Procedure

The field sampling equipment decontamination procedures when analyzing for organic constituents are as follows:

1. Non-phosphate detergent and water wash;
2. Tap water rinse;
3. Solvent rinse (e.g., hexane, methanol);
4. Distilled water rinse; and
5. Wrap equipment completely with aluminum foil to prevent contact with other materials during storage and/or transport to the field, as appropriate.

The field sampling equipment decontamination procedures when analyzing for inorganic constituents are as follows:

1. Non-phosphate detergent and water wash;
2. Rinse equipment with at least a ten-percent nitric acid solution;
3. Tap water rinse;
4. Distilled water rinse; and
5. Wrap equipment with aluminum foil to prevent contact with other materials during storage and/or transport to the field.

Appendix F

Select Surface Cover Work Plan and Inspection Reports

ARCADIS

Select Surface Inspection 03 2013

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

DATE: 3/25/12 TIME: Throughout day

Quarterly Inspection		
Is the Surface Cover Consistent with Existing Conditions?		
Item	**Condition Satisfactory (X)**	**Condition Unsatisfactory (X)**
AOI Group 12-A	☒	☐
AOI Group 2-C	☒	☐
AOI Group 29-A	☒	☐
AOI Group 09-A	☒	☐
AOI Group 09-B (Area 1)	☒	☐
AOI Group 09-B (Area 2)	☒	☐

Comments*
Areas appear to be in similar condition as previous inspection. No visible changes to surfaces including damage. Areas showing slight increase in natural weathering. New vegetation growth due to season and dumping also noted. Remarked boundaries as needed.

Print Name (Inspector): D.Newcom

Inspector's Signature: _____

*** Comments and photos attached**

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

Item	Groundcover	Condition	Photo Notes
AOI Group 12-A	• New vegetation growth due to season • Broken and intact concrete	Fair, no changes noted	**See attached photos with notes for all locations**
AOI Group 2-C	• Intact concrete • Mix of broken concrete and asphalt • New vegetation growth due to season	Fair, no changes noted	1. 2. 3. 4.
AOI Group 29-A	• Broken and intact concrete • New vegetation growth due to season	Fair, no changes noted	1. 2. 3. 4.
AOI Group 09-A	• Broken and intact concrete • New vegetation growth due to season	Fair, no changes noted	1. 2. 3. 4. 5.
AOI Group 09-B (Area 1)	• Intact concrete • New vegetation growth due to season • Treatment system installed throughout area, cover not disturbed during install (all lines above ground)	Fair, no changes noted	1. 2. 3. 4. 5.

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

Item	Groundcover	Condition	Photo Notes
AOI Group 09-B (Area 2)	• Intact concrete and asphalt • Deteriorating concrete and asphalt • New vegetation growth due to season	Fair, no changes noted	1. 2. 3. 4. 5. 6.

Select Surface Inspection
AOI – 29A
3/25/2013



Corner A-1 facing the center



Corner A-2 facing the center



Corner A-3 facing the center



Corner A-4 facing the center

Select Surface Inspection
AOI – 12A
3/25/2013



Corner B-1 facing the center



Corner B-2 facing the center



Corner B-3 facing the center



Corner B-4 facing the center

Select Surface Inspection
AOI – 02C
3/25/2013



Corner C-1 facing the center



Corner C-2 facing the center



Corner C-3 facing the center



Corner C-4 facing the center

Select Surface Inspection
AOI – 09 B1
3/25/2013



Corners F-1/ F-2 facing the center



Corner E-3 facing the center



Corners F-3/F-4 facing the center



Corner E-4 facing the center

*Corners combined due to system locations

Select Surface Inspection
AOI – 09 A
3/25/2013



Corner G-1 facing the center



Corner G-4 facing the center



Corner G-5 area facing the center



Corner G-6 area facing the center

Select Surface Inspection
AOI – 09 B2
3/25/2013



Corner I-7 facing the center



Corner I-10 facing the center



Between corners I-8 and I-9 facing the center

ARCADIS

Select Surface Inspection 06 2013

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

DATE: 6/17/2013 TIME: Throughout day

Quarterly Inspection		
Is the Surface Cover Consistent with Existing Conditions?		
Item	**Condition Satisfactory (X)**	**Condition Unsatisfactory (X)**
AOI Group 12-A	☒	☐
AOI Group 2-C	☒	☐
AOI Group 29-A	☒	☐
AOI Group 09-A	☒	☐
AOI Group 09-B (Area 1)	☒	☐
AOI Group 09-B (Area 2)	☒	☐

Comments*
Areas appear to be in similar condition as previous inspection, with exception to newly resurfaced areas (see individual notes). No visible changes to remaining surfaces including damage. Areas showing slight increase in natural weathering. New vegetation growth due to season and dumping also noted. Remarked boundaries as needed.

Print Name (Inspector): D.Newcom

Inspector's Signature: _____

*** Comments and photos attached**

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

Item	Groundcover	Condition	Photo Notes
AOI Group 12-A	• Soil areas resurfaced with barrier and stone • Broken and intact concrete • No vegetation growth (due to resurfacing)	Fair to good (due to resurfacing)	**See attached photos with notes for all locations**
AOI Group 2-C	• Entire area resurfaced with barrier and stone • No vegetation growth (due to resurfacing)	Good (due to resurfacing)	1. 2. 3. 4.
AOI Group 29-A	• Bare soil areas resurfaced with barrier and stone • Broken and intact concrete • New vegetation growth due to season	Fair to Good (due to resurfacing)	1. 2. 3. 4.
AOI Group 09-A	• Broken and intact concrete • New vegetation growth due to season	Fair, no changes noted	1. 2. 3. 4. 5.
AOI Group 09-B (Area 1)	• Intact concrete • New vegetation growth due to season • Treatment system installed throughout area, cover not disturbed during install (all lines above ground)	Fair, no changes noted	1. 2. 3. 4. 5.

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

Item	Groundcover	Condition	Photo Notes
AOI Group 09-B (Area 2)	• Intact concrete and asphalt • Deteriorating concrete and asphalt • New vegetation growth due to season	Fair, no changes noted	1. 2. 3. 4. 5. 6.

Select Surface Inspection
AOI – 29A
6/17/2013



Corner A-1 facing the center



Corner A-2 facing the center



Corner A-3 facing the center



Corner A-4 facing the center

Select Surface Inspection
AOI – 12A
6/17/2013



Corner B-1 facing the center



Corner B-2 facing the center



Corner B-3 facing the center



Corner B-4 facing the center

Select Surface Inspection
AOI – 02C
6/17/2013



Corner C-1 facing the center



Corner C-2 facing the center



Corner C-3 facing the center



Corner C-4 facing the center

Select Surface Inspection
AOI – 09 B1
6/17/2013



Corners F-1/ F-2 facing the center



Corner E-3 facing the center



Corners F-3/F-4 facing the center



Corner E-4 facing the center

*Corners combined due to system locations

Select Surface Inspection

AOI – 09 A

6/17/2013



Corner G-1 facing the center



Corner G-4 facing the center



Corner G-6 area facing the center

Select Surface Inspection
AOI – 09 B2
6/17/2013



Corner I-7 facing the center



Corner I-10 facing the center



Between corners I-8 and I-9 facing the center

ARCADIS

Select Surface Inspection 09 2013

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

DATE: 9/20/2013 TIME: Throughout day

Quarterly Inspection		
Is the Surface Cover Consistent with Existing Conditions?		
Item	**Condition Satisfactory (X)**	**Condition Unsatisfactory (X)**
AOI Group 12-A	☒	☐
AOI Group 2-C	☒	☐
AOI Group 29-A	☒	☐
AOI Group 09-A	☒	☐
AOI Group 09-B (Area 1)	☒	☐
AOI Group 09-B (Area 2)	☒	☐

Comments*
Areas appear to be in similar condition as previous inspection, with exception to newly resurfaced areas (see individual notes). Area 09-A is the only remaining area to be resurfaced. This is due to an ongoing excavation nearby. No visible changes to remaining surfaces including damage. Areas showing slight increase in natural weathering. New vegetation growth due to season and dumping also noted. Remarked boundaries as needed.

.

Print Name (Inspector): D.Newcom

Inspector's Signature: _____

*** Comments and photos attached**

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

Item	Groundcover	Condition	Photo Notes
AOI Group 12-A	• Soil areas resurfaced with barrier and stone • Broken and intact concrete • No vegetation growth (due to resurfacing)	Fair to good (due to resurfacing)	**See attached photos with notes for all locations**
AOI Group 2-C	• Entire area resurfaced with barrier and stone • No vegetation growth (due to resurfacing)	Good (due to resurfacing)	1. 2. 3. 4.
AOI Group 29-A	• Bare soil areas resurfaced with barrier and stone • Broken and intact concrete • New vegetation growth due to season	Fair to Good (due to resurfacing)	1. 2. 3. 4.
AOI Group 09-A	• Broken and intact concrete • New vegetation growth due to season • Partial surface cover complete, ongoing excavation nearby will complete cover once backfilling is finished	Fair, no changes noted	1. 2. 3. 4. 5.
AOI Group 09-B (Area 1)	• Intact concrete, small surface covers completed • New vegetation growth due to season • Treatment system installed throughout area, cover not disturbed during install (all lines above ground)	Good (due to resurfacing)	1. 2. 3. 4. 5.

MAINTENANCE OF SELECT SURFACE COVERS
INSPECTION LOG SHEET

NAO FLINT NORTH (OTHERWISE KNOWN AS BUICK CITY) – SOUTHEND
FLINT, MICHIGAN

Item	Groundcover	Condition	Photo Notes
AOI Group 09-B (Area 2)	• Intact concrete and asphalt • Surface cover complete • New vegetation growth due to season • Soil pile removed from within select surface area	Good (due to surface cover)	1. 2. 3. 4. 5. 6.

Select Surface Inspection
AOI – 29A
9/20/2013



Corner A-1 facing the center



Corner A-2 facing the center



Corner A-3 facing the center



Corner A-4 facing the center

Select Surface Inspection
AOI – 12A
9/20/2013



Corner B-1 facing the center



Corner B-2 facing the center



Corner B-3 facing the center



Corner B-4 facing the center

Select Surface Inspection
AOI – 02C
9/20/2013



Corner C-1 facing the center



Corner C-2 facing the center



Corner C-3 facing the center



Corner C-4 facing the center

Select Surface Inspection
AOI – 09 B1
9/20/2013



Corners F-1/ F-2 facing the center



Corner E-3 facing the center



Corners F-3/F-4 facing the center



Corner E-4 facing the center

*Corners combined due to system locations

Select Surface Inspection
AOI – 09 A
9/20/2013



Northwest corner facing southeast



Southwest corner facing northeast

*Two photos taken during this inspection due to excavation activities and limited access to area surrounding AOI-09A. Surface cover partially complete due to current activities.

Select Surface Inspection
AOI – 09 B2
9/20/2013



Corner I-7 facing the center



Corner I-10 facing the center



Between corners I-8 and I-9 facing the center



Corner I-11 facing the center

*Soil pile removed according to work plan, surface cover complete and entire area has been covered.

ARCADIS

RACER Buick City Select Surface Cover Work Plan Rev 082812

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

MEMO

To:
Chris Black, USEPA Region 5

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

From:
Micki M. Maki

Date:
May 23, 2012
Revised August 28, 2012

ARCADIS Project No.:
B0064410.2012

Subject:
2012 Select Surface Cover Work Plan
Buick City Site, Flint, MI

Introduction

This Select Surface Cover Work Plan (work plan) was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for the Buick City Site. This work plan outlines the approach that will be used to install surface cover at six areas located in the Southend of the Site (AOI 29-A, AOI 12-A, AOI 02-C, AOI 09-A, AOI 09-B [north], and AOI 09-B [south]). These areas are referred to collectively herein as the areas requiring surface cover (ARSCs) and the locations of the ARSCs are depicted on Figure 1.

Background

During the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI), lead was detected above the Michigan Department of Environmental Quality (MDEQ) nonresidential direct contact criteria of 900 milligram per kilogram (mg/kg) in soil samples collected from the ARSCs. In accordance with the selected final remedy presented in the *Final Decision and Response to Comments (Final Decision) for the Southend of the Site* (USEPA, May 2010) the *Corrective Measures Implementation* Work

Plan - Southend of the Former General Motors Corporation North American Operations Facility (Otherwise Known as Buick City) (CMI Work Plan) required that institutional and engineering controls be implemented to protect future Site users from near surface soils that exceed direct contact criteria. The engineering controls include maintaining the surface cover consistent with existing conditions at the ARSCs located in the Southend of the Site. In the portions of the ARSCs where a concrete slab or asphalt pavement already exists, the ARSC will be maintained, as necessary, to ensure that the surface cover remains as a barrier for potential direct contact and/or particulate inhalation exposure. In the portions of the ARSCs where an asphalt or concrete cover does not currently exist; surface cover will be installed and maintained.

Select Areas Requiring Installation of Surface Cover

Figure 1 presents the approximate locations of the six ARSCs located at the Southend of the Site. Portions of these ARSCs will require surface cover installation. The surface cover at the ARSCs currently consists of existing pavement, concrete, and/or vegetation. To maintain adequate cover at the ARSCs, the portions of the ARSCs that are presently vegetated are required to have a surface cover installed. Portions of the ARSC where concrete or asphalt has become compromised and subsurface soil is exposed will also be required to have surface cover installed. Portions of the ARSC that are currently covered by concrete slab or asphalt pavement which is in good condition, will continue to be inspected to ensure that the surface cover remains as a barrier for potential direct contact exposure. Based on inspection of the areas, the total area requiring additional cover is approximately 24,000 square feet.

Note that results from additional sampling conducted in 2011 at the AOI 09-B [south] ARSC reduced the extent of area requiring restrictions and engineering controls, as approved by Mr. Chris Black of the United States Environmental Protection Agency [USEPA] via Email correspondence with ARCADIS on February 7, 2012. The revised extent of AOI 09-B [south] ARSC is presented on Figure 1.

Select Surface Cover Installation

Grade Preparation

Trees, brush, and established vegetation in the areas requiring surface cover will be cleared and grubbed, and the residuals placed in a dumpster (or roll-off box, if appropriate) for subsequent waste characterization and disposal. The soil pile located at AOI 09-B (south) will be sampled and either disposed of offsite (if analytical results exceed non-residential criteria) or graded over the area (if the analytical result are below non-residential criteria) prior to installation of the select surface cover. Excess soil will placed in the aforementioned dumpster/roll-off.

Surface Cover Components

The surface cover will consist of a geotextile fabric used as a demarcation layer, with 6-inches of aggregate placed on top. In addition, a small plastic valve box will be installed at the corners of each ARSC to facilitate the relocation of the areas while conducting inspections (discussed further below). Figure 2 shows the design details of the cover, comprised of a geotextile fabric with a 6 inch layer of crushed aggregate. The geotextile demarcation layer will consist of a non-woven 8-ounce per square-foot polyproplyene material. The demarcation layer will extend 1 foot beyond the limits of the area in which it covers. The aggregate will consist of crushed natural stone equal to Michigan Department of Transportation (MDOT) 22A or 22AA. Aggregate consisting of limestone or slag is not acceptable.

Monitoring Well Cover, Manhole Cover, or Storm Grate Framing

Monitoring wells located within an area requiring select cover placement will be framed with decay-resistant, cedar lumber as shown on Figure 2. The cedar lumber will consist of 4-inch by 4-inch nominal sections cut to fit the monitoring well, manhole, or storm grate locations.

Manhole Capping

Manhole or storm grates shall be capped with poly plastic, manhole cover plate, and 21AA stone as detailed on Figure 2 to prevent surface water drainage to the abandoned sewer system. The manhole cover plate shall be installed over the poly plastic in such a manner so that 21AA aggregate installation does not puncture the poly plastic. The manhole caps shall create a hydraulic seal upon completion.

Next Steps and Inspections

A budget amendment will be prepared and submitted to request authorization for additional budget to implement this work. Upon approval of this Select Surface Cover Work Plan, ARCADIS will prepare a request for proposal (RFP) and solicit bids from subcontractors to complete the work. The select surface covers will be inspected 3 months and 6 months after the completion of the field work and annually thereafter.

References

ARCADIS, 2010. *Corrective Measures Implementation Work Plan*, August 13, 2010.

United States Environmental Protection Agency, 2010. *Final Decision and Response to Comments for the Southend of the Site*.

CITY: LANSING DIV/GROUP: 141 DB: D.AKENS LD: GMS PM: L. McBURNEY LYR:ON=*;OFF=*REF*
J:\Lansing-MI\RETURN-TO\Brighton-MI\racer trust\64410B01.dwg LAYOUT: 1 SAVED: 4/5/2012 4:14 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 4/5/2012 4:14 PM BY: AKENS, DAVID
XREFS: IMAGES: PROJECTNAME: ----
64410X01
64410X3A
64410X02
64410X00

LEGEND:

- MLC PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING
- LOCATION OF AREAS REQUIRING SURFACE COVER
- MONITORING WELL
- RECOVERY WELL
- RFI PIEZOMETER

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 200' 400'
APPROXIMATE GRAPHIC SCALE

AOI 02-C
AOI 12-A
AOI 29-A
AOI 09-A
AOI 09-B [NORTH]
AOI 09-B [SOUTH]

BLDG 94
BLDG 03
BLDG 02
BLDG 84
BLDG 40
BLDG 23
BLDG 29
BLDG 12
BLDG 08
BLDG 16
BLDG 44
BLDG 04
BLDG 09
BLDG 18
ADMIN. BLDG 01
UNION BLDG LOCAL 599

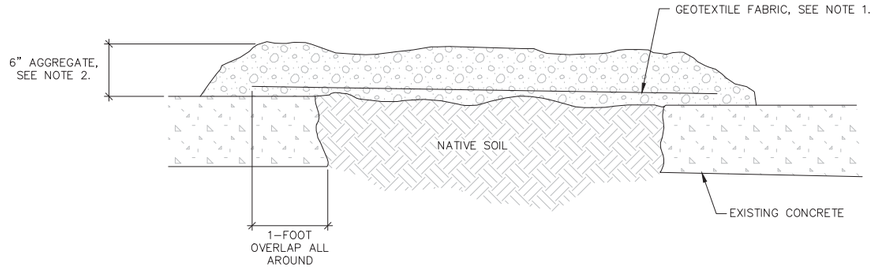
FLINT RIVER
OAK PARK
OAK TECHNOLOGY PARK
FORMER DUPONT PLANT LOCATION
HAMILTON AVE
INDUSTRIAL AVE
NORTH ST
DIVISION ST

RACER TRUST
BUICK CITY, FLINT, MI
SELECT COVER WORK PLAN

LOCATIONS FOR SELECT SURFACE COVER WORK

ARCADIS

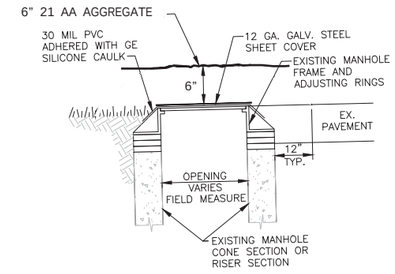
FIGURE 1



CONTAMINATED SOIL BARRIER
NTS

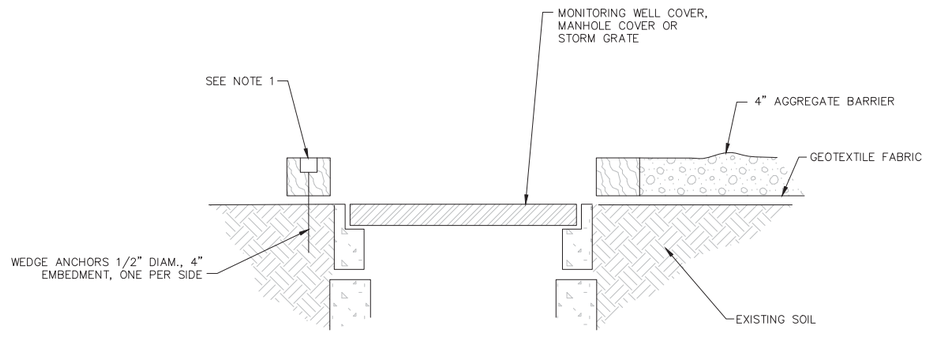
NOTES:

1. FABRIC NON-WOVEN POLYPROPYLENE, MIN. WEIGHT 8 OZ/SY., AS MANUFACTURED BY MIRAFI OR EQUAL. OVERLAP JOINTS 4-INCHES.
2. AGGREGATE SHALL BE CRUSHED STONE EQUAL TO MDOT-22A OR 22AA. AGGREGATE SHALL BE NATURAL STONE. LIMESTONE AND SLAG ARE NOT ACCEPTABLE.



PROPOSED
1/2" = 1'-0"

CAP DETAIL "A"



MONITORING WELL FRAMING
NTS

NOTE:

1. PROVIDE NOMINAL 4"x4' CEDAR FRAMING. LAP JOINT CORNERS AND CONNECT SIDES WITH MIN. 3 DECK SCREWS PER CORNER.

RACER TRUST
BUICK CITY, FLINT, MI
SELECT COVER WORK PLAN

SELECT SURFACE COVER WORK DETAILS

ARCADIS

FIGURE
2

CITY: SYRACUSE DIV/GROUP: 141 DB: G.STOWELL L.FORAKER LD:GMS PM:L.McBURNEY LYR:ON=*;OFF=*REF*
G:\ENVCAD\Lansing-MI\ACTIVE\00644102012010011\64410B03.dwg LAYOUT:2 SAVED: 8/29/2012 3:06 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ----
XREFS: IMAGES: PROJECTNAME: ---
64410X00 Drafting work for Select Surface Cover WP_Page_2.jpg
Drafting work for Select Surface Cover WP_Page_3.jpg

Appendix G

Storm Sewer Video Inspection Memos

ARCADIS

Outfall 002 Investigation Memo

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

MEMO

To:
Micki Maki
Christi Kiker
Victoria Stacey

Copies:

From:
Tony Maffeo

Date:
April 9, 2014

ARCADIS Project No.:
B0064410.2014.01301

Subject:
002 Outfall Storm Sewer Camera Investigation Summary
RACER Buick City Site, Flint, Michigan

On November 11 - 18, 2013, storm sewer closed circuit television (CCTV) investigation activities were conducted in Outfall 002 (manhole 2-17 to the Outfall 002 termination) storm sewers in order to inspect the integrity of the piping, determine size and construction material of piping, determine water flow, and identify areas of staining and potential oil infiltration.

The following is a summary of the observations which were noted during the review of the CCTV video.

Manhole 2-15 to Manhole 2-16

- Total Span: 509.10 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:

- Videotaping began at manhole 2-15 and continued towards manhole 2-16. Distances noted below are from manhole 2-15.
- Sewer constructed from reinforced concrete.
- Water seepage on right side and left side of wall (approximately a quarter of the way up) starting at manhole 2-15, which continues through length of pipe until approximately 249.80 feet.
- Dark brown stain on left side of wall along joint at 0.50feet.
- Small fractures located at 8.30 feet along top of sewer.
- Light brown stain following joint at 8.70 feet.
- Sediment buildup (approximately 4.0") located on right side of sewer at 13.00 feet.
- Black stain and small fractures on left side of wall along joint at 16.90 feet.
- Dark brown staining and hard material buildup following joint at 32.40 feet.
- Dark brown staining on right side along joint at 36.10 feet.
- Weeping liquid drip stain along joint at 51.40 feet.
- Debris (appears to be tennis ball-sized rock fragments and approximately 5.0" of sediment) in center of sewer at 75.20 feet.
- Dark black drip stain (potential oil stain) located on right side of wall along joint at 88.20 feet.
- Drip stain following joint at 102.20 feet.
- Brown water staining along joint at 115.40 feet.
- Sediment buildup (approximately 2.5") at 115.40 feet.
- Longitudinal fracture with brown staining following joint at 127.00 feet.
- Active tap break-in (18.0" concrete pipe) located on upper right of sewer at 131.70 feet.
- Calcification buildup along joints at 142.60 and 147.30 feet.
- Dark brown drip staining (potential oil stain) along top and right side of joint at 169.50 feet.
- Brown water stain along joint with active dripping from top of joint at 182.00 feet.
- Dark brown water stain along joint with active dripping from top of joint at 194.70 feet.
- Brown water stain along joint with active dripping from top of joint at 210.10 feet.
- Calcification buildup along joint at approximately 213.70 feet.
- Brown water stain along joint with active dripping from top and sides of joint at 231.30 feet.
- Dark brown staining following joint at 251.50 feet.
- Water staining and calcium buildup with active dripping from top of joint at 273.10 feet.
- Water staining and calcium buildup with active dripping from top of joint at 284.60 feet.
- Dark brown staining along top of joint at 300.70 feet.
- Dark brown staining with water seepage along joint at 305.80 feet.
- Dark brown staining at base of joint on right side of sewer at 329.20 feet.
- Dark brown staining following joint at 345.90 feet.
- Brown water stain along joint with active dripping from top of joint at 368.40 feet.
- Dark brown drip staining following joint at 379.10 feet.
- Brown water stain along joint with active dripping from top of joint at 396.70 feet.
- Calcium buildup along bottom of joints from 399.10 to approximately 429.30 feet.

- Brown water staining along joints with active dripping from top of joints at 420.50 and 426.50 feet.
- Longitudinal fracture along top of sewer between joints at 434.40 feet.
- Brown staining (likely water) along joints with active dripping from top and sides of joints at 445.70 and 448.30
- Brown water staining with active dripping from the top of the joint and dark brown staining (potentially oil) on the right side of joint at 453.00 feet.
- Calcium buildup on left side of sewer at joint, 454.90 feet.
- Longitudinal fracture along top of sewer from 455.70 until approximately 489.80 feet.
- Brown staining (likely water) and calcium buildup following joints at 494.00 and 501.60 feet.
- Dripping water with dark brown/black staining at 507.50 feet.
- Dripping water with dark/brown/black staining.
- Manhole 2-16 encountered at 509.10 feet from manhole 2-15.

Manhole 2-16 to Manhole 2-17

- Total Span: 586.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Minimal
- Items of Concern:
  - Water staining with encrustation following all joints from 6.30 until 586.00 feet.
  - Multiple lateral fractures between joints at 15.10 feet.
  - Water seepage along sides of sewer from approximately 20.20 until 586.00 feet.
  - Black staining seeping from top right of joint at 41.00 feet.
  - Multiple lateral fractures between joints from 41.00 and 44.30 feet.
  - Unknown debris (possible wood or concrete chunks) under the water surface located in center of sewer at 48.80 feet.
  - Black staining at top of joint at 73.10 feet.
  - Dark brown stain on right side of sewer between joints located at 85.70 and 89.10 feet.
  - Light brown water stain along joint with active dripping from top of joint at 99.30 feet.
  - Dark brown staining on top of sewer between joints located at 121.70 and 126.60 feet.
  - Brown water stain along joint with active dripping from top of joint at 169.20 feet.
  - Dark brown drip stain on left side of sewer at 169.20 feet.
  - Brown water stain along joint with active dripping from top of joint at 176.90 feet.
  - Light brown water stain along joint with active dripping from top of joint at 205.70 feet.
  - Dark brown drip stain (possibly oil) on right side of sewer at 217.50 feet.

- Light brown water stain along joint with active dripping from top of joint at 238.00 feet.
- Active tap break-in (12.0” concrete pipe) with white and yellow water staining buildup located on upper right of sewer at 301.90 feet.
- Dark brown staining following joint at 343.40 feet.
- Dark brown staining along right side of joint at 385.10 feet.
- Dark brown staining along right side of joint at 474.50 feet.
- Dark brown staining along left side of joint at 503.50 feet.
- Abandoned survey at 586.00 feet.

Manhole 2-15 to Manhole 2-14

- Total Span: 416.20 feet (CCTV terminated due to adverse conditions)

- Pipe Construction: Reinforced Concrete

- Observed Water Flow Rate: Steady Items of Concern:

  - Water seepage on right and left side of wall (approximately a quarter of the way up) starting at Manhole 2-15, which continues through length of pipe until approximately 416.20 feet.
  - Brown staining and encrustations on left and right base of joint at 6.00 feet.
  - Debris (appears to be sticks, metal pipes, and garbage) located at 34.50 feet.
  - Dark brown/black staining on upper left side of sewer at 106.60 feet.
  - Brown staining and encrustations on left and right base of joints at 143.60, 151.60 and 160.10 feet.
  - Dark brown/black staining on upper right side of joint at 264.10 feet.
  - Dark brown/black staining on top of joint at 277.90 feet.
  - Approximately 2.0” diameter metal pipe sticking down from top of sewer at 288.80 feet.
  - Dark brown/black staining on upper left of joint at 294.60, 303.30 and 310.20 feet.
  - Dark brown/black staining on sides of sewer at 317.30 feet.
  - Dark brown/black staining on right side of joints at 328.20, 334.00 feet and following the joints at 343.30 and 358.60 feet.
  - Dark brown/black staining on the left side of joint at 374.80 feet.
  - Approximately 2.0” diameter metal pipe sticking down from top of sewer at 379.50 feet.
  - Circumferential 3.0” diameter fracture at right base of joint at 391.90 feet.
  - Black staining following joints from 406.40 until 416.20 feet.
  - End of survey at 416.20 feet due to drop-off in sewer.

Manhole 2-7 to Manhole 2-6

- Total Span: 29.0 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Sewer constructed from reinforced concrete.
  - Water seepage on top (approximately 4 feet laterally) and sides (until approximately a quarter of the way from the bottom) of sewer wall continuing through length of pipe.
  - Water staining with calcium buildup following all joints.
  - Longitudinal fracture on top of sewer at 14.50 feet.
  - Black staining following joint at 14.50 feet.
  - Active tap break-in (18-inch concrete pipe) with water staining and calcium buildup located on lower right of sewer at 28.70 feet.
  - Manhole 2-6 encountered at 29.00 feet from manhole 2-7.

Manhole 2-5 to Manhole 2-6

- Total Span: 51.0 feet (CCTV Terminated due to adverse conditions)
- Pipe Construction: Reinforced Concrete Items of Concern:
  - Sewer constructed from reinforced concrete.
  - Water seepage (approximately 4.0’ laterally) at top of sewer continuing until 35.50 feet.
  - Water seepage on middle sides of sewer wall continuing through length of pipe.
  - Dark black stains along sides of sewer at all joints.
  - Water staining with calcium buildup following all joints.
  - Longitudinal fracture at top of sewer at 33.80 feet.
  - Medium, grapefruit-sized rocks scattered on bottom of the sewer at 51.00 ft. Piled concrete chunks and/or rocks appear to be located 10.0’ further along sewer and approximately 4.0-5.0” above the water surface.
  - Survey abandoned at 51.00 ft. due to debris.

Manhole 2-7 to Manhole 2-8

- Total Span: 215.0 feet
- Pipe Construction: Reinforced Concrete

- Items of Concern:

  - Water seepage (approximately 4 feet laterally) at top of sewer continuing through length of pipe.
  - Water seepage on middle sides of sewer wall continuing until approximately 143.50 feet.
  - Dark black stains continuing from bottom of sewer until 3/4 up along joint, following all joints.
  - Water staining with calcium buildup following all joints.
  - Unknown streaking on sides of sewer approximately 2 feet up wall from 20.90 until 122.70 feet.
  - Longitudinal fracture at top of sewer at 105.20 feet.
  - Longitudinal fracture at top of sewer at 159.70 feet.
  - Active tap break-in (18-inch concrete pipe) with water staining and calcium buildup located on lower right of sewer at 214.80 feet. A steel grate situated at base of pipe.
  - Manhole 2-8 encountered at 215.00 feet from manhole 2-7.

Manhole 2-11 to Manhole 2-10

- Total Span: 215.0 feet

- Pipe Construction: Reinforced Concrete

- Items of Concern:

  - Sewer constructed from reinforced concrete.
  - Excessive water seepage on top and sides of sewer throughout length of pipe.
  - Dark black stains continuing from bottom of sewer until 3/4 up along joint, following all joints.
  - Vegetation debris (approximately 2-inches) along sides and bottom of sewer at 4 feet and a cantaloupe-sized object (possibly a rock) on the left side of sewer at 8.80 feet.
  - Active tap break-in (18-inch concrete pipe) with water staining located on lower right of sewer at 34.90 feet.
  - Manhole 2-10 encountered at 35.00 feet from manhole 2-11.

Manhole 2-10 to Manhole 2-9

- Total Span: 217.50 feet

- Pipe Construction: Reinforced Concrete

- Items of Concern:

- Excessive water seepage with drip stains on top and sides of sewer throughout length of pipe.
- Calcium buildup and water stains on both sides at the base of all joints through length of pipe.
- Dark black stains continuing from bottom of sewer until 3/4 up along joint, following all joints.
- Longitudinal fracture on top right of sewer from 28.30 to 34.70 feet.
- Multiple fractures on top left of sewer at 34.70 feet.
- Manhole 2-9 encountered at 217.50 feet from manhole 2-10.

Manhole 2-9 to Manhole 2-8

- Total Span: 32 feet (Manhole 2-8 was not found at the ground surface (potentially buried).
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Minor water seepage on sides and top of sewer, continuing sporadically along pipe.
  - Dark black stains with a hard material buildup along joints at 19.30 and 25.40 feet.
  - Active tap break-in (18-inch concrete pipe) with water staining and calcium buildup located on lower left of sewer at 32 feet. Steel grate situated at base of pipe.
  - Manhole 2-8 encountered at 32.00 feet from manhole 2-9.

Manhole 2-11 to Manhole 2-12

- Total Span: 223 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Excessive water seepage on top and sides of sewer throughout length of pipe.
  - Dark black stains continuing from bottom of sewer until 3/4 up along joint, following all joints.
  - Appears to be grass growing on bottom of sewer (as observed by fine barrel roots) from manhole 2-11 until 29 feet; from 43.80 until 123.50 feet; from 143.50 until 165.60 feet; and from 192.30 until 204.70 feet.
  - Sediment and vegetation buildup (ranging approximately 4 to 24 inches from bottom) on sides and center of sewer from 12.80 until 28.30 feet; at 58.90 feet; at 133.90 feet; from 148.20 until 165.60 feet; and from 192.30 until 204.70 feet.
  - Approximately 2-inch diameter tree root observed following the bottom right side of the sewer from 148.20 until 158.10 feet.
  - Approximately 1.0” diameter tree root tap-in at bottom left of joint at 197.20 ft.

- Approximately 1.5-inch diameter tree root tap-in at bottom right of sewer at 201.60 feet.
- Approximately 4.5-inch diameter tree root tap-in at upper left of joint at 216.50 feet.
- Active tap break-in (18.0” concrete pipe) located on left center of sewer at 221.30 feet.
- Manhole 2-12 encountered at 223.00 feet from manhole 2-11.

Manhole 2-12 to Manhole 2-13

- Total Span: 22 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Excessive water seepage on top and sides of sewer throughout length of pipe.
  - Fine barrel roots observed protruding from bottom right of joint at 6.00 feet.
  - Dark black stains with a hard material buildup along joint at 11.60 feet.
  - Dark black stain following joint at 17.90 feet.
  - Manhole 2-13 encountered at 22.00 feet from manhole 2-12.

Manhole 2-4 to Manhole 2-5

- Total Span: 78.50 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Longitudinal fracture along top of pipe at manhole 2-4.
  - Dark brown staining and water seepage on sides of sewer throughout length of pipe.
  - Calcium buildup and water staining along all joints throughout pipe.
  - Longitudinal fracture along top of pipe wandering from 32.70 until the end of the pipe.
  - Water seepage on bottom left of joint at 46.40 feet.
  - Encrustation buildup along base of joints at 46.40 and 58.20 feet.
  - Debris (large gravel-sized rocks) are scattered on the left side of the sewer from 58.20 until 64.40 feet.
  - Active tap break-in (18-inch concrete pipe) located on left center of sewer at 78.40 feet.
  - Encountered manhole 2-5 at 78.50 feet from manhole 2-4.

Manhole 2-6 to Manhole 2-5

- Total Span: 23 feet (CCTV Terminated due to adverse conditions)
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Water seepage on sides of sewer throughout length of pipe.
  - Dark brown staining along tops of all joints throughout length of survey.
  - Animal tracks scattered along bottom of sewer from manhole 2-6 until 22.90 feet.
  - Longitudinal fracture along top of pipe from 5 feet until the end of the survey.
  - Medium-sized rocks scattered on bottom of the sewer at 22.90 ft. Piled concrete chunks and/or rocks appear to be located further along sewer and approximately 4-5-inches above the water surface.
  - Survey abandoned at 23 feet due to debris.

Manhole 2-4 to Manhole 2-3

- Total Span: 139.50 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Water staining on sides, bottoms and tops of sewer throughout length of pipe.
  - Longitudinal fracture wanders along top of pipe from manhole 2-4 until the end of the survey.
  - Dark brown staining on top rights of all joints throughout length of survey.
  - Fine barrel roots observed protruding from bottom left of joint at 11.30 feet.
  - Approximately 1-inch diameter root system observed protruding from bottom left of joint at 23.00 feet.
  - Roots observed on bottom of sewer (fine barrel) at 28.60 feet.
  - Dark brown stain located on top left of sewer at 37.40 feet.
  - Encrustation buildup along base of joint at 47.20 feet.
  - Roots observed on bottom of sewer (fine barrel) from 47.20 until 53.70 feet.
  - Encrustation buildup along base of joints at 88.70 and 94.80 feet.
  - Approximately 6 medium-sized rocks positioned in the center of the pipe and protruding approximately 8-inches from the bottom of the sewer at 98.60 feet. Rocks repositioned to the right side of sewer.

- Approximately 1.5-inch diameter tree root observed protruding from top left of joint at 113.20 feet.
- Sediment and vegetation debris located on left side of sewer from 120.20 until 132.30 feet.
- Active tap break-in (18-inch concrete pipe) located on bottom right of sewer at 139.50 feet.
- Encountered manhole 2-3 at 139.50 feet from manhole 2-4.

Manhole 2-3 to Manhole 2-2

- Total Span: 286 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Water staining on sides, tops and bottoms of sewer throughout length of pipe.
  - Dark brown staining on top of sewer throughout length of pipe.
  - Longitudinal fracture wanders along top of pipe from manhole 2-3 until the end of the survey.
  - Medium barrel roots observed protruding from bottoms of joints from 39.90 until 119.80 feet.
  - Medium-sized rocks scattered on bottom left/center of the sewer from 55.80 until 98.50 feet. Rocks repositioned to the left side of sewer.
  - Approximately 2-foot root system observed protruding from bottom right of joint at 171.90 feet and bottom left at joint 179.80 feet.
  - Approximately 1-foot root system observed protruding from bottom right of joint at 186.50 feet and bottom left of joint at 192.90 feet.
  - Medium barrel roots observed protruding from bottoms right of joint at 247.40 feet.
  - Encountered manhole 2-2 at 286.00 feet from manhole 2-3.

Manhole 2-2 to Manhole 2-1

- Total Span: 217.50 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Water staining on sides, tops and bottoms of sewer throughout length of pipe.
  - Dark brown staining on top of sewer throughout length of pipe.
  - Longitudinal fracture wanders along top of pipe from manhole 2-3 until the end of the survey.
  - Medium barrel roots observed protruding from bottoms of joints from 42.50 until 74.10 feet.
  - Animal tracks scattered along bottom of sewer from 157.50 feet until end of survey.

- Encountered manhole 2-1 at 217.50 feet from manhole 2-2.

Manhole 2-2 to Manhole 2-1

- Total Span: 165 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Water staining on sides, tops and bottoms of sewer throughout length of pipe.
  - Dark brown staining on top of sewer throughout length of pipe.
  - Animal tracks scattered along bottom of sewer from manhole 2-1 until end of survey.
  - Encountered Outfall 002 at 165.00 feet from manhole 2-1.

ARCADIS

Outfall 003 Investigation Memo

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MEMO

To:
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Christi Kiker
Victoria Stacey

Copies:

From:
Tony Maffeo

Date:
May 15, 2014

ARCADIS Project No.:
B0064410.2014.01301

Subject:
003 Outfall Storm Sewer Camera Investigation Summary
RACER Buick City Site, Flint, Michigan

The following storm sewer closed circuit television (CCTV) investigation activities were conducted in Outfall 003 in 2013 in order to inspect the integrity of the piping, determine size and construction material of piping, determine water flow, and identify areas of staining and potential oil infiltration.

The following is a summary is of the November 11 - 18, 2013 observations (manhole 3-31 to 3-15) which were noted during the review of the CCTV video.

Manhole 3-30 to Manhole 3-31

- Total Span: 0.00 feet
- Pipe Construction: Clay Tile
- Observed Water Flow Rate: Moderate
- Items of Concern: Unable to travel sewer due to debris and sediment (8 to 10 inches) settled at base on sewer.

Manhole 3-30 to Manhole 3-28

- Total Span: 509.10 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern: Unable to travel sewer due to debris and sediment (10 to 12 inches) settled at base on sewer.

Manhole 3-29 to Manhole 3-30

- Total Span: 0.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern: Unable to travel sewer due to debris and sediment (8 to 10 inches) settled at base on sewer.

Manhole 3-29 to Manhole 3-30

- Total Span: 0.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern: Unable to travel sewer due to debris and sediment (8 to 10 inches) settled at base on sewer.

Manhole 3-28 to Manhole 3-25

- Total Span: 0.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate

- Items of Concern: Unable to travel sewer. Path blocked by cinder blocks and large rocks.

Manhole 3-28 to Manhole 3-28-1

- Total Span: 0.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern: Unable to travel sewer due to excessive construction debris.

Manhole 3-21 to Manhole 3-22

- Total Span: 181.80 feet
- Pipe Construction: Clay Tile
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Dark black stain along joint at 15.50 ft.
  - Dark brown stain between along joint at 39.90 ft.
  - Water seepage on right side and left side of wall starting at 60.40 ft. which continues in multiple areas through length of pipe.
  - Tap Break-in at 101.30 ft. Encrusted with brown sludge material.
  - Broken tile at 125.50 ft.
  - Dark black drip stain, possible oil, between 168.70 ft. and 169.00 ft.
  - Excessive water seepage at 181.80 ft.
  - MH 3-22 encountered at 181.80 ft. from MH 3-21

Manhole 3-21 to Manhole 3-20

- Total Span: 121.40 feet
- Pipe Construction: Clay Tile
- Observed Water Flow Rate: Moderate
- Items of Concern:

- Broken manhole lid at 2.00 ft.
- Water seepage at 36.00 ft. Encrusted with brown sludge material.
- Water seepage at 73.90 ft. Encrusted with dark brown material.
- Concrete construction debris at 106.80 ft.
- Tap break-in at 112.80 ft. Encrusted with dark brown sludge material.
- Tap break-in at 116.20 ft. Encrusted with bright orange sludge material.
- Encountered debris at 121.40 ft. Could not continue survey.

Manhole 3-20 to Manhole 3-19

- Total Span: 107.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Sewer constructed from reinforced concrete.
  - Dark brown liquid weeping from joint at 11.00 ft. Continues full length of pipe at almost every joint.
  - Cracks located at 42.20 ft. along top of joint.
  - Dark encrusted black sludge, oil, weeping from joint at 47.20 ft.
  - Fracture longitudinal at 61.10 ft. stretching to 67.60 ft.
  - Dark encrusted black sludge, oil, weeping from joint at 67.60 ft.
  - Dark encrusted black/brown sludge, possible oil, at 76.80 ft.
  - Dark encrusted black sludge, oil, at 80.20 ft. various throughout pipe.
  - Encountered MH 3-19 at 107.00 from MH 3-20.

Manhole 3-19 to Manhole 3-18

- Total Span: 50.50 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Sewer constructed from reinforced concrete.

- Surface reinforcement visible at 6.30 ft.
- Dark encrusted brown/black sludge, possible oil, weeping from joint at 13.90 ft.
- Dark encrusted brown/black sludge, possible oil, weeping from joint at 19.50 ft.
- Brown encrusted sludge weeping from joint at 24.80 ft.
- Dark red/brown sludge weeping from joint at 34.70 ft.
- Sewer water contaminated with visible oil.
- Unable to continue survey at 50.50 ft. due unknown blockage underwater.

Manhole 3-15 to Manhole 3-16

- Total Span: 99.90 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Brown/orange encrusted sludge weeping from joint at 8.00 ft.
  - Brown/orange encrusted sludge weeping from joint at 23.80 ft.
  - Brown/orange encrusted sludge weeping from joint at 43.40 ft.
  - Unknown metal and rock debris at 57.10 ft.
  - Orange/red encrusted sludge weeping from joint at 80.90 ft.
  - Encountered MH 3-16 at 99.90 ft. from MH 3-15.

Manhole 3-16 to Manhole 3-17

- Total Span: 30.20 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Dark black sludge weeping from joint at 0.90 ft.
  - Brown liquid weeping from joint at 25.20 ft.
  - Encountered MH 3-17 at 30.20 ft. from MH 3-16.

Manhole 3-17 to Manhole 3-18

- Total Span: 235.20 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Brown sludge weeping from joint at 42.80 ft. Dripping water coming from top of joint.
  - Brown/black liquid weeping from joint at 56.20 ft.
  - Brown/black liquid weeping from joint at 68.30 ft.
  - Black sludge, possible oil, weeping from joint at 95.30.
  - Lateral fracture along top of pipe at 95.30 ft.
  - Lateral fracture along top of pipe at 135.90 ft.
  - Black liquid weeping from joint at 147.90 ft.
  - Brown/orange encrusted sludge weeping from joint at 183.30 ft.
  - Dark brown, possible oil, weeping from joint at 187.00 ft.
  - Dark brown liquid weeping form joint at 220.30 ft.
  - Brown liquid weeping from sewer wall at 235.50 ft.
  - More visible brown stains along sewer walls down drain.
  - Excessive debris, camera would not travel any farther. Survey abandoned at 235.20 ft.

Manhole 3-25-1 to Manhole 3-25-7

- Total Span: 510.70 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Gray/brown encrustation along top of sewer continues throughout entire sewer length.
  - Tap break-in infiltrating dark brown sludge, oil, at 131.90 ft.
  - Black stain along joint at 136.20 ft.
  - Black stain along joint at 140.80 ft.
  - Black stain along joint at 148.20 ft.
  - Orange/brown stain along joint at 152.20 ft.

- Orange/brown stain along joint at 176.20 ft.
- Longitudinal fracture along top of pipe at 274.10 ft.
- Longitudinal fracture along top of pipe at 464.40 ft.
- Encountered MH 3-35-7 at 510.70 ft. from MH 3-25-1.

Manhole 3-25-1 to Manhole 3-25-2

- Total Span: 312.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Tap break-in at 2.00 ft. Black stains on inside of pipe.
  - Black/brown encrustation along top of joint at 13.20 ft.
  - Tap break-in with black liquid, possible oil, at 24.00 ft.
  - Brown encrustation along joints various throughout pipe.
  - Tap break-in at 82.10 ft. with orange/brown encrustation.
  - Longitudinal fracture along top of pipe at 82.10 ft.
  - Longitudinal fracture along top of pipe at 114.10 ft.
  - Tap break in at 164.70 ft. with white/yellow stain exiting the pipe.
  - Multiple fractures along top of pipe at 171.80 ft.
  - Longitudinal fracture along top of pipe at 226.10 ft.
  - Brown oily substance along damaged joint at 303.00 ft.
  - Brown/black stain around tap break-in at 312.00 ft.
  - Encountered MH 3-25-2 at 312.00 ft. from MH 3-25-1.

Manhole 3-25-1 to Manhole 3-25

- Total Span: 164.00 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Brown/black sludge, possible sealant gasket, along joints various throughout pipe.

- Gray/black stain along joint at 87.50 ft.
- Dark black stain along top of pipe from 108.90 ft. to 117.10 ft.
- Dark brown/black stain along joint at 129.60 ft.
- Dark black stain along top of pipe at 139.50 ft.
- Encountered MH 3-25 at 164.00 ft. from MH 3-25-1.

Manhole 3-23 to Manhole 3-28

- Total Span: 142.20 feet
- Pipe Construction: Reinforced Concrete
- Observed Water Flow Rate: Moderate
- Items of Concern:
  - Tap break-in at 0.00 ft with brown/orange sludge encrusted all around it.
  - Dark brown/orange liquid weeping from joint at 6.00 ft.
  - Dark brown stain along pipe wall at 10.10 ft.
  - Dark brown/orange stain underneath tap break-in at 31.00 ft.
  - Dark brown/orange liquid weeping from all joints starting at 13.00 ft and throughout length of pipe.
  - Excessive debris, rocks and gravel, camera not able to travel any farther. Survey abandoned at 142.20 ft.

The following is a summary is of the June 17-18, 2013 observations (manhole 3-20 – 3-26 and 3-31 to 3-15) which were noted during the review of the CCTV video.

Manhole 3-51 to Manhole 3-52

- Total Span: 70.0 feet
- Observed Water Flow Rate: Minimal
- Staining Present: None
- Items of Concern:
  - At 60.7 feet cable or pipe passing through sewer pipe.
  - Multiple tap break-ins and repairs noticed during inspection near the 68 foot mark.

Manhole 3-51 to Manhole 3-48

- Total Span: 408.0 feet
- Observed Water Flow Rate: Minimal
- Staining Present: Minimal
- Items of Concern:
  - Material change from clay tile to corrugated polyvinyl chloride (PVC) at 167.1 feet transition back to clay tile at 188.1 feet.
  - Potential staining at 240.0 feet, 8-inch diameter clay pipe at 240.4 feet.
  - Potential staining at 403.0 feet, 10-inch diameter concrete pipe.

Manhole 3-48 to Manhole 3-47

- Total Span: 42.0 feet
- Observed Water Flow Rate: Minimal
- Staining Present: Minimal
- Items of Concern:
  - Staining noticed at 24.4 feet, break-in piping directly overhead.
  - Staining noticed at 31.0 feet, failure in tile piping.

Manhole 3-20 to Manhole 3-21

- Total Span: 41.5 feet
- Observed Water Flow Rate: Moderate
- Staining Present: None
- Items of Concern:
  - Water infiltration at manhole.
  - Hole in concrete pipe at 19.6 feet.

- Moderate infiltration from top of pipe at 32.6 feet. Heavy settled gravel/debris.
- Heavy settled gravel/debris at 41.5 feet, camera unable to get past obstructions.

Manhole 3-22 to Manhole 3-21

- Total Span: 10.3 feet
- Observed Water Flow Rate: Steady
- Staining Present: Minimal
- Items of Concern:
  - Staining in sidewall 0.0 feet.
  - Moderate influent water flow at 8.4 feet, 15-inch diameter concrete pipe. Failed plug.
  - Pipe construction material change from concrete to clay tile at 10.3 feet. Large hole in bottom of pipe. Misalignment in pipe. Staining at east wall in clay tile. Inspection aborted, camera could not get past hole and bend in pipe.

Manhole 3-23 to Manhole 3-22

- Total Span: 525.0 feet
- Observed Water Flow Rate: Steady
- Staining Present: Heavy
- Items of Concern:
  - Staining at manhole. Potential sheen visible at sides of piping.
  - Moderate staining at 9.7 feet, 6-inch diameter clay pipe.
  - Staining at joint from 0.0 to 10.0 feet.
  - Staining on joint at 31.0 feet.
  - Staining at south joint at 36.6 feet
  - Staining at south joints between 50.0 to 60.0 feet.
  - 6 inch diameter pipe at 56.2 (no visible staining)
  - Minimal influent water flow at 127.7 feet, 10-inch diameter clay pipe.
  - Staining at joints from 157.0 to 164.7 feet.
  - Staining at joints from 200.0 to 204.3 feet.
  - Settled gravel/debris at 242.0 feet.

- Staining at joint at 280.0 feet.
- Staining at north and south joints at 291.3 feet
- Staining at north and south joints at 296.0 feet.
- Minimal influent water at 301.6 feet, 12-inch diameter clay pipe. Water is dark in color and staining present below tap break-in.
- Heavy infiltration at joint, north and south, at 328.7 feet.
- Staining at joint at 336.9 feet.
- Minimal influent water flow at 362.7, 6-inch diameter clay pipe.
- Heavy infiltration at north joint at 374.6 feet.
- Steady infiltration at joint at 389.1 feet.
- Crack in pipe at 397.0 feet.
- Moderate infiltration at north joint at 402.6 feet.
- Staining at north joint at 406.8 feet.
- Settled gravel/debris at 427.2 feet.
- Steady infiltration at south joint at 462.7 feet.
- Staining south joint at 462.8 feet.
- Staining south joint at 465.9 feet.
- Minimal influent water flow at 522.5 feet, 12-inch diameter clay pipe. Debris/encrustation in tap break-in. Staining at sidewall at 525.0 feet.
- Steady influent water flow further east, 12-inch diameter clay pipe. Debris/encrustation in tap break-in.

Manhole 3-23 to Manhole 3-23-A

- Total Span: 610.0 feet
- Observed Water Flow Rate: Minimal to None
- Staining Present: Moderate
- Items of Concern:
  - Misalignment at 11.1 feet.
  - Moderate influent water flow at 35.7 feet from a 24–inch diameter concrete pipe, possible oxidized staining.
  - Settled gravel/debris at 98.7 feet.
  - Deposits (encrustation) noticed on seems of joints from 0.0 feet to 119.0 feet.
  - Black staining on top/ceiling of pipe at 119.0 feet.
  - Settled gravel/debris at 119.0 feet.

- Black staining on west side of pipe at 134.0 feet.
- Settled gravel/debris at 154.0 feet.
- Settled gravel/debris at 185.4 feet.
- Minimal influent water flow at 270.1 feet from a 4–inch diameter concrete pipe.
- Moderate influent water flow at 279.2 feet from a 4-inch diameter concrete pipe, roots penetrating around pipe.
- Settled gravel/debris at 308.2 feet.
- Heavy water infiltration through joint at 333.7 feet.
- Staining on east joint at 351.0 feet.
- Staining on east and west joint at 400.0 feet.
- Staining on west joint at 410.0 feet.
- Staining on west joint at 425.0 feet.
- Staining on west wall at 433.0 feet.
- Staining on east joint at 435.0 feet.
- Settled gravel/debris at 474.8 feet.
- Heavy infiltration through joint at 480.3 feet, Staining on west joint.
- Staining on west wall 497.0 feet.
- Staining on west wall 526.0 feet.
- Staining on east wall 550.0 feet.
- Steady influent water flow at 581.0 feet from a 24-inch diameter concrete pipe.
- Staining on west pipe at 610.0 feet.

Manhole 3-23-A to Manhole 3-26

- Total Span: 52.0 feet
- Observed Water Flow Rate: Minimal
- Staining Present: Minimal
- Items of Concern:
  - Settled gravel/debris 0.0 feet.
  - Staining on east and west pipe at 10 feet.
  - Pipe transitions from round to oval at 15 feet.
  - Staining on deposits from 20.0 to 25.0 feet.
  - Staining on east and west wall visible beyond 52 feet (end of camera).

ARCADIS

Outfall 013 Investigation Memo

ARCADIS of Michigan, LLC
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Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Micki Maki
Christi Kiker
Victoria Stacey

Copies:

From:
Tony Maffeo

Date:
May 15, 2014

ARCADIS Project No.:
B0064410.2014.01301

Subject:
Outfall 013 Sewer Investigation Summary
RACER Buick City Site, Flint, Michigan

During November 11 - 18, 2013, storm sewer closed circuit television (CCTV) investigation activities were conducted in Outfall 013 (manholes 13-4 to 13-16) storm sewers in order to inspect the integrity of the piping, determine size and construction material of piping, determine water flow, and identify areas of staining and potential oil infiltration.

The following is a summary of the observations which were noted during the review of the CCTV video.

Manhole 13-16 to Manhole 13-15

- Total Span: 2440 feet
- Pipe Construction: Reinforced Concrete
- Items of Concern:
  - Water seepage at 38.50 feet. Encrusted with brown material.
  - Excessive dripping water from joint at 44.60 feet.
  - Excessive dripping water from joint at 52.20 feet.

- Excessive dripping water from joint at 62.70 feet.
- Black liquid (possible oil) seeping from joint at 101.20 feet.
- Water seepage from joint at 141.10 feet. Encrusted with brown material.
- Black liquid (possible oil) seeping from joint at 198.90 feet.
- Excessive water dripping from joint at 205.80 feet.
- Black liquid (possible oil) seeping from joint at 224.70 feet.
- Black liquid (possible oil) seeping from joint at 232.60 feet.
- Encountered MANHOLE 13-15 at 244 feet from manhole 13-16.

Manhole 13-15 to Manhole 13-14

- Total Span: 1,209.50 feet (Abandoned survey – ran out of cable)
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Dripping water from longitudinal crack at 39.20 feet.
  - Brown liquid (possible oil) seeping from joint at 180.90 feet.
  - Black liquid (possible oil) seeping from joint at 519.40 feet.
  - Brown liquid (possible oil) seeping form joint at 888.30 feet.
  - Ran out of cable at 1209.50 feet. Abandon survey; come up to manhole 13-14 to manhole 13-15.

Manhole 13-14 to Manhole 13-15

- Total Span: 60.0 feet (Reached point of previous survey)
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - None noted.

Manhole 13-13 to Manhole 13-14

- Total Span: 468.00 feet
- Pipe Construction: Reinforced concrete

- Items of Concern:
  - Black liquid (potentially oil) seeping from joint at 82.30 feet.
  - Black liquid (potentially oil) seeping from joint at 266.00 feet.
  - End survey at 468.00 feet.

Manhole 13-12 to Manhole 13-13

- Total Span: 476.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Black liquid (possible oil) seeping form joint at 125.10 feet.
  - Encountered manhole 13-13 at 476.00 feet from manhole 13-12.

Manhole 13-12 to Manhole 13-11

- Total Span: 298.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - None noted, encountered manhole 13-11 at 298.00 feet from manhole 13-12.

Manhole 13-11 to Manhole 13-10

- Total Span: 208.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - None noted, encountered manhole 13-10 at 208.00 feet from manhole 13-11.

Manhole 13-10 to Manhole 13-9

- Total Span: 374.00 feet

- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Black liquid (potentially oil) seeping from joint at 71.00 feet.
  - Encountered manhole 13-09 at 374.00 feet from manhole 13-10.

Manhole 13-9 to Manhole 13-8

- Total Span: 137.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - None noted, encountered manhole 13-8 at 137.00 feet from manhole 13-9.

Manhole 13-8 to Manhole 13-7

- Total Span: 273.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Black liquid (potentially oil) seeping from joint at 116.40 feet.
  - Brown liquid (potentially oil) seeping from joint at 187.60 feet.
  - Black/brown stain on ceiling at 273.00 feet.
  - Encountered manhole 13-07 at 273.00 feet from manhole 13-08.

Manhole 13-7 to Manhole 13-6

- Total Span: 273.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Black/brown liquid (possible oil) seeping from joint at 256.30 feet.
  - Black liquid (potentially oil) seeping from joint at 279.80 feet.

  - Black liquid (potentially oil) seeping from joint at 297.70 feet.
  - Encountered manhole 13-06 at 381.00 feet from manhole 13-07.

Manhole 13-6 to Manhole 13-5

- Total Span: 385.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Black staining along top of sewer pipe at 294.00 feet.
  - Encountered manhole 13-05 at 385.00 feet from MANHOLE 13-06.

Manhole 13-5 to Manhole 13-4

- Total Span: 470.00 feet
- Pipe Construction: Reinforced concrete
- Items of Concern:
  - Black liquid (potentially oil) seeping from joint at 278.10 feet.
  - Abandoned survey at 470.00 feet. Camera underwater.

Appendix H

Outfall 004 Re-route Evaluation Memos

ARCADIS

Buick City Outfall 004-13 Flow Monitoring Memo 013014

ARCADIS G&M of Michigan, LLC
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Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Daugherty Johnson, City of Flint
Rob Bincsik, City of Flint

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

From:
Tony Maffeo

Date:
January 30, 2013

ARCADIS Project No.:
B0064410.2013.01301

Subject:
Outfall 004 Flow Monitoring Memo
RACER Buick City Site - Flint, MI

This Outfall 004 Re-route Investigation Flow Monitoring Memo (Memo) has been prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan (**Figure 1**).

This memo is based on two investigations of the reroute of the Outfall 004 storm sewer into the 013 storm sewer. The initial investigation was an evaluation of the existing sewer alignment, topographical data, and the development of a conservative computer model to determine if the rerouting was hydraulically feasible. The initial investigation was discussed and reviewed with the City of Flint (City) and their consultant and summarized in the Outfall 004 reroute Preliminary Evaluation Memo [ARCADIS April 2013]. As a result it was determined that a second investigation would be conducted to measure the actual flow at the connection point for the Outfall 004 sewer and the downstream location for the Outfall 013 sewer as summarized in this document.

As required by the City, storm sewer flow monitoring was necessary to ensure the proposed reroute of Outfall 004 into Outfall 013 will not negatively impact (pipe surcharging and surface flooding) the existing storm sewer system. The City and their consultant requested that the flow monitoring be conducted to capture three (3) events with rainfall depths of 1-inch or more. In addition, the 10-year, 24-hour design criteria was also used to evaluate the conveyance capacity of the Outfall 013 storm sewer.

Outfall 004 flow monitoring is being completed in support of the evaluation of rerouting the existing Outfall 004 drainage upstream of manhole 4-21 **(Figure 2)** into the Outfall 013 storm sewer. Computer modeling of the Outfall 004 and Outfall 013 hydrology and the Outfall 013 storm sewer system hydraulics was previously completed to determine existing system peak flow rates and the capacity limitations in the Outfall 013 storm sewer. The goals of the Outfall 004 Reroute Investigation Flow Monitoring were to determine the existing peak flows in the Outfall 004 drainage system upstream of manhole 4-21 and the existing peak flows in the Outfall 013 storm sewer system in order to verify the proposed computer model results.

The measured peak flow is compared to the computer model results to determine if there is enough capacity in the Outfall 013 storm sewer to accept the rerouted stormwater from the Outfall 004 storm sewer. Flow Monitoring was conducted at two locations to accurately capture the flow of the proposed reroute. The locations were manhole 4-22 to gauge the additional load from Outfall 004 that would be added to Outfall 013 and Manhole 13-2 to capture the downstream flow as indicated in **Figure 3**. Additionally one mechanical tipping bucket rain gage was placed between the flow monitoring locations to measure precipitation (**Figure 3**).

Two flow monitors and the rain gage were installed on June 12, 2013 and remained in place until November 1, 2013. Flow monitoring data were reviewed throughout the period to evaluate the quality of the information and if necessary provide guidance for improving future data quality.

DATA COLLECTION

Two (2) FlowShark flow monitors were installed by ADS Environmental Services at the locations indicated in **Figure 3** to continuously measure depth and velocity in the Outfall 004 and Outfall 013 storm sewers at five (5) minute increments. The flow rate at the monitoring locations was calculated based on the depth and velocity measurements.

The flow monitor installed at Outfall 004 measured the depth and velocity in a 54-inch diameter pipe and the calculated flow data from June 12th thru November 1st is provided in **Figure 4**. Due to equipment calibration issues the velocity measurements at flow monitor Outfall 004 from June 12th thru June 26th do not reflect the actual velocity in the storm sewer. As a result the data collected during this time was not applied to the comparison. The velocity sensor required recalibration on June 26th to improve the measurement accuracy and data from June 27th to November 1st was used in this analysis. The flow monitor installed at Outfall 013 measured the depth and velocity in a 78-inch diameter pipe and the calculated flow data from June 12th thru November 1st is provided in **Figure 5**. Rain gage data are also included in **Figure 4** and **Figure 5** to correlate the storm sewer responses to rainfall events.

During the data collections period, an inspection of the Outfall 013 sewer integrity was completed. This inspection was conducted using a Closed Circuit Television Camera which was deployed along the length

of the sewer. The inspection video demonstrated that the sewer pipe showed no obvious signs of collapse and was free of obstructions. The video also confirmed locations of lateral pipes that could be plugged to decrease flow in the sewer if required to assure adequate flow capacity.

DATA SUMMARY

The rainfall measurements from the tipping bucket rain gage were recorded in 0.01-inch increments and were reported every five (5) minutes. The statistical analysis of each rain event with total measurements of 0.1 inches or more is presented in **Table 1**. The Return Period or rainfall frequency is a statistical analysis of the number of times, during a specified period of years, that precipitation of a certain magnitude or greater occurs or will occur at a station; numerically, the reciprocal of the frequency is reported as the return period. Inter-event duration (time between events) was set to six (6) hours and the duration included rainfall depths less than 0.1 inches. The return period was approximated using Huff, Floyd A. and James R. Angel, Bulletin 71 - Rainfall Frequency Atlas of the Midwest, Midwestern Climate Center and Illinois State Water Survey, 1992. Return period is the probability that a specific rainfall event will occur in any given year on average (i.e. a storm event with a 10-year return period has a 1/10 or 10% probability).

Three rainfall events at least 1-inch or more within 24 hours were recorded from June 12th to November 1st, 2013. The first 1-inch rainfall event occurred on June 24th and during that time the velocity measurements for Outfall 004 were not accurate and did not represent actual flow conditions. The velocity sensor required recalibration on June 26th to improve the measurement accuracy. The second 1-inch rainfall event occurred on June 27th and both flow monitors were operating properly. The third 1-inch rainfall event occurred on October 31st and both flow monitors were operating properly. The measured data was used to estimate the design peak flow rate for the 10-year, 24-hour event.

Three different techniques (average, linear projection, and computer model) were used to estimate the 10-year, 24-hour peak flow rate for the proposed combined Outfall 004 and 013. The average 10-year, 24-hour peak flow rate based on **Table 2** is 190 cfs. The projected 10-year, 24-hour peak flow rate based on linear projection of the collected data (**Figure 6**) is 230 cfs. Larger rainfall events provide a more accurate comparison to design events because they weigh heavier on the extrapolated peak flow rates (i.e. June 27, 2013). The computer model 10-year, 24-hour peak flow rate is 324 cfs based on the approximate storm sewer drainage areas with an assumed impervious area of 40 percent.

Although the maximum projected computer model peak flow rate of 324 cfs (which was conservatively calculated) is greater than the Outfall 013 flow capacity of 323 cfs (as calculated from information shown on the record drawings and survey information) the flows measured during the second investigation suggest that adjusting computer hydrology parameters to more accurately reflect existing conditions would lower the maximum projected computer model peak flow to a level below the calculated Outfall 013 pipe capacity. The peak flow may also be reduced by elimination of any lateral storm sewer lines servicing

onsite drainage. Based on this information the rerouting of Outfall 004 into Outfall 013 should handle the combined flow without pipe surcharging and surface flooding. The pipe capacity and sewer profile information are shown on **Figure 7.**

EVALUATION

Outfall 004 and Outfall 013 depth and velocity measurements were evaluated during the monitoring period to determine trends and averages. The dry weather depth and velocity measurements for Outfall 004 during the monitoring period are slightly above zero, which is likely caused by groundwater infiltration. The dry weather depth and velocity measurements for Outfall 013 during the monitoring period were affected by the Flint River. The accuracy of the Outfall 013 flow monitoring measurements does not appear to be affected by the higher river level (i.e. change in velocity measurements based on river levels). At no time during the monitoring period did the Flint River exceed the crown of pipe and the maximum recorded depth of water in the pipe at the monitoring location was 4.5 feet, less than the internal pipe diameter.

If the Flint River water surface elevation is equal to or less than the crown of the discharge pipe, then there would be no effect on the storm sewer full pipe capacity. If the water surface elevation in the Flint River exceeds the crown of the Outfall 013 pipe at the discharge point the full pipe capacity would be reduced.

Outfall 004 and Outfall 013 responded to wet-weather events as shown in **Figure 4** and **Figure 5**. In order to determine the potential peak flow in Outfall 013 (after re-routing Outfall 004 to Outfall 013) a combined data set was developed that consists of summing the 15-minute average flow rates for Outfall 004 and Outfall 013 (**Figure 6**). The combined flow rates for Outfall 004 and Outfall 013 generated the peak flows presented in **Table 2** (rainfall depths greater than 0.35 inches). The table also includes an extrapolated peak flow rate that would occur during the 10-year, 24-hour design event based on a linear ratio of total rainfall depth. The total rainfall depth at the site during the 10-year, 24-hour design event based on the Bulletin 71 - Rainfall Frequency Atlas of the Midwest, Midwestern Climate Center and Illinois State Water Survey is 3.13 inches.

CONCLUSIONS

The results of the peak flow rate analysis indicated that the combined Outfall 004 and 013 stormwater system is estimated to be 190 to 324 cubic feet per second (cfs). The flow capacity of Outfall 013 storm sewer is 323 cfs as shown in the system profile (**Figure 7**).

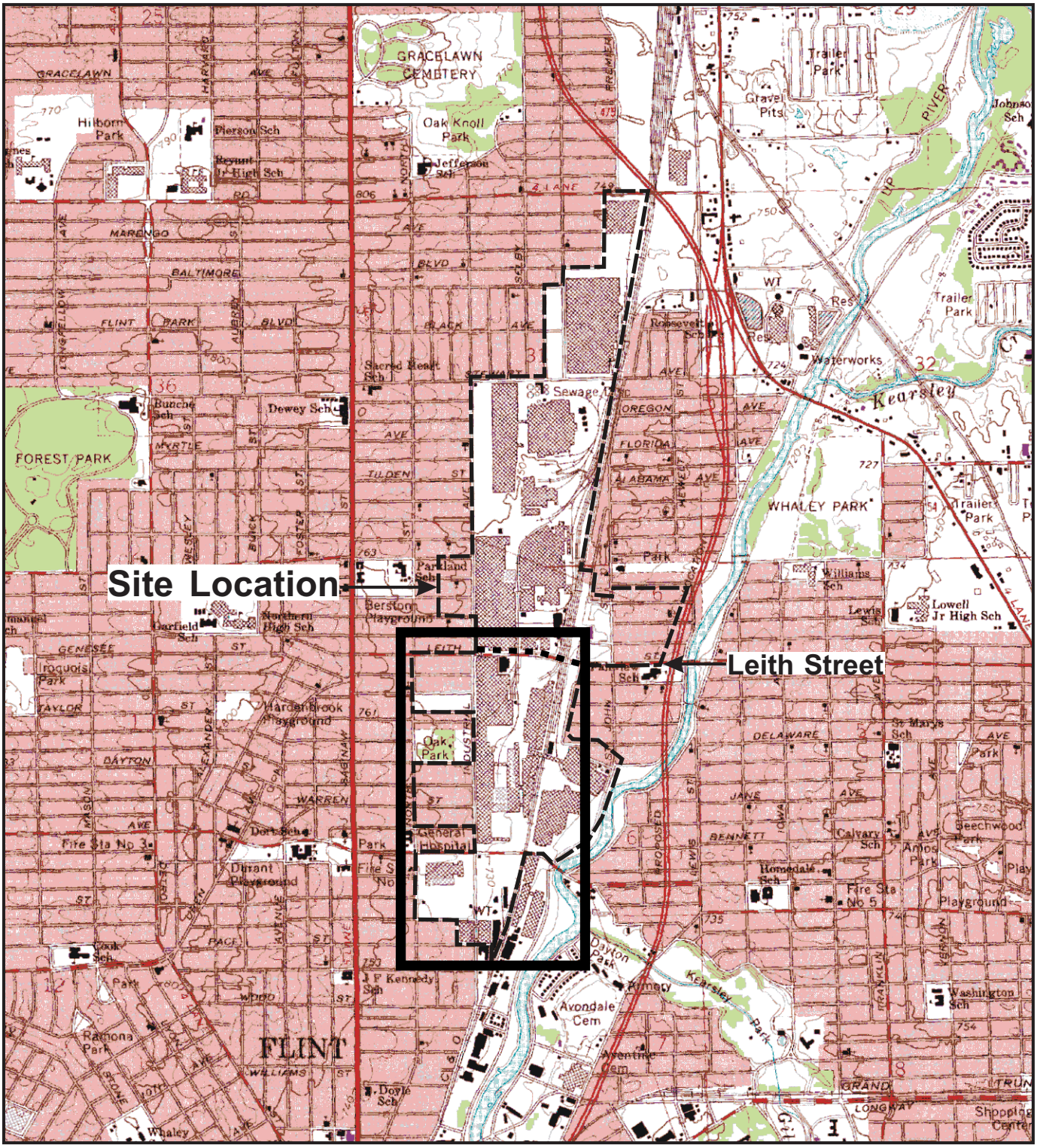
The modeled 324 cfs peak flow rate is based on conservative assumptions as to the extents of the drainage area. Although there are other storm sewers servicing the area, because the exact extents of the drainage areas are not available the modeled flow rate assumed Outfall 013 collected all runoff in the drainage area. Since the modeled peak flow does not include adjustments to the hydraulic parameters

based on the flow investigation and does includes source areas that are known not to be contributing to the system it is clear the actual peak flow is less than the Outfall 013 capacity.

In addition, the measured peak flow rates are well below the design capacity of the existing pipe. Therefore, it is requested that the reroute of Outfall 004 into the Outfall 013 storm sewer system be approved by the City of Flint.

Upon approval, a meeting with the City of Flint and their consultant is requested to discuss the required design and construction submittals.

Figures



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

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

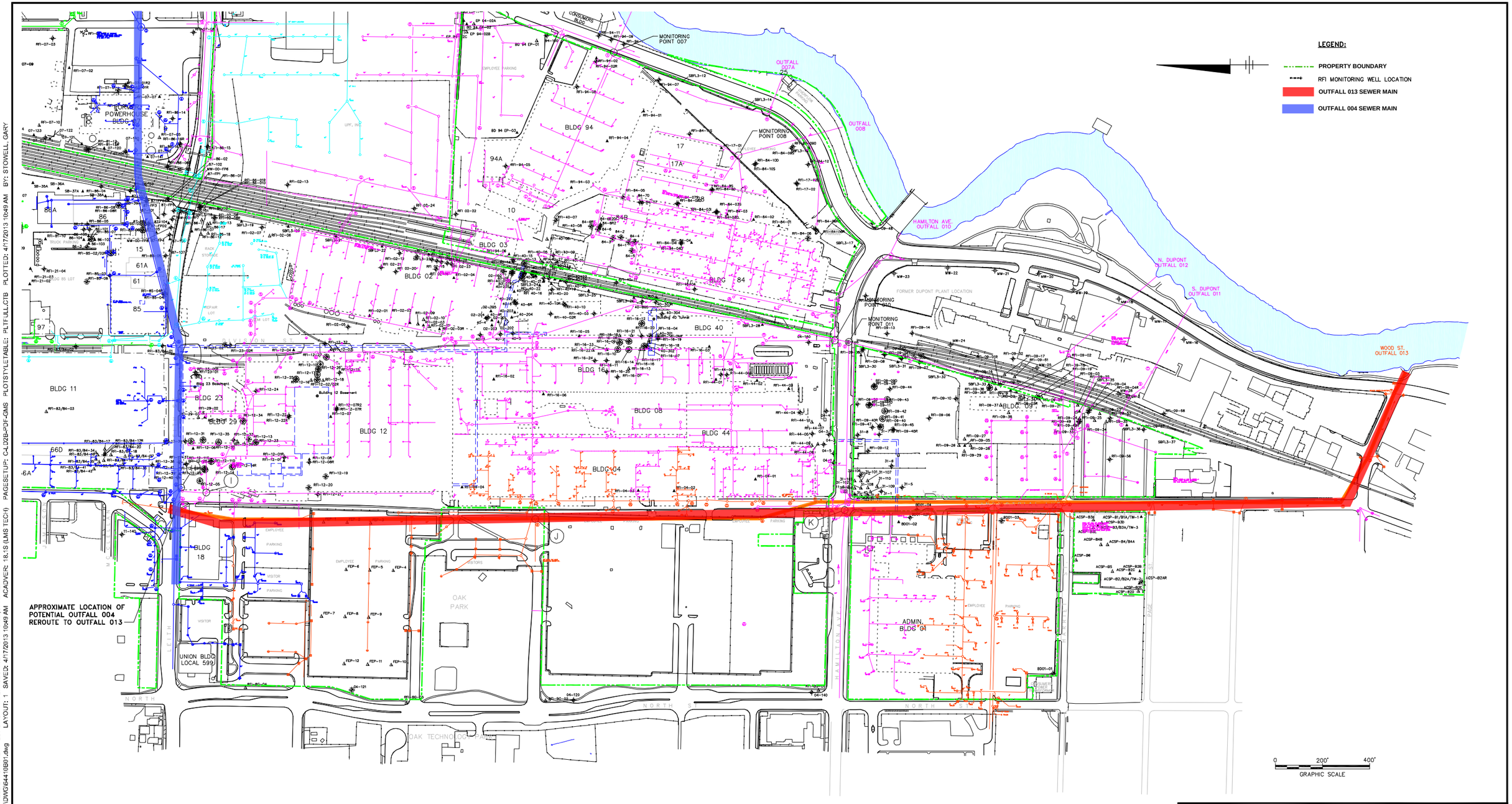
RACER TRUST
BUICK CITY - FLINT, MICHIGAN

SITE LOCATION

ARCADIS

FIGURE
1

05/07/2012 SYRACUSE, NY-ENV/CAD-DJHOWES
B0064410/4012/00104/CDR/64410N02.CDR



NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100.
2. DRAINAGE AREAS ILLUSTRATED BASED ON INFORMATION OBTAINED FROM CITY OF FLINT AND GM, TO THE EXTENT SUCH INFORMATION IS AVAILABLE.
3. OUTFALL 008 AND 100 NO LONGER IN SERVICE.
4. THE MONITORING POINT FOR OUTFALL 011 IS LOCATED IN HAMILTON AVE. A SAMPLE COULD NOT BE COLLECTED DUE TO TRAFFIC HAZARDS.
5. THE MONITORING POINT FOR OUTFALL 012 WAS FOUND TO BE DRY, THEREFORE A SAMPLE WAS NOT COLLECTED.

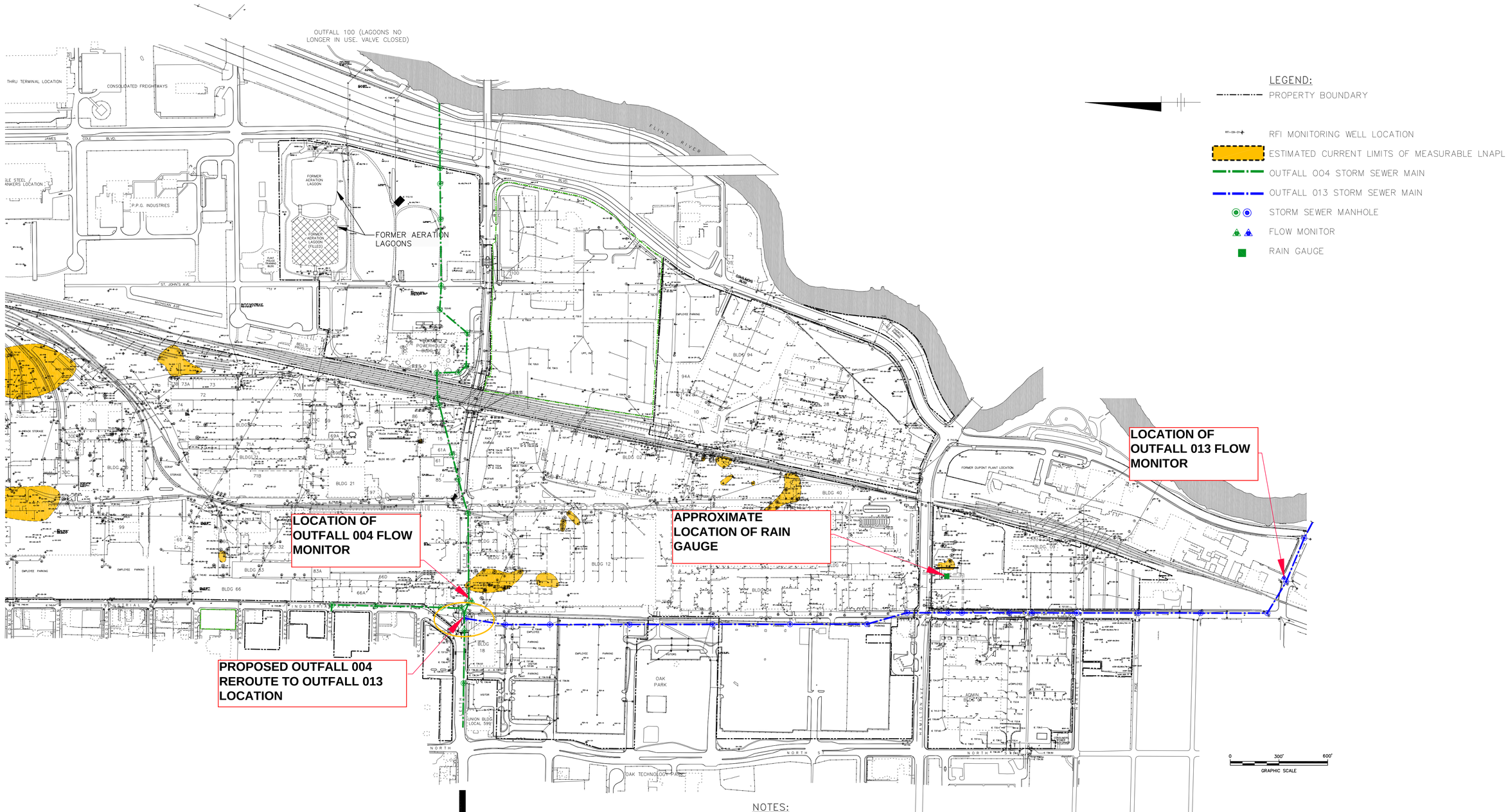
REVITALIZING AUTO COMMUNITIES
ENVIRONMENT RESPONSE TRUST
BUICK CITY, FLINT, MICHIGAN

OUTFALL 004 REROUTE SITE MAP

ARCADIS

FIGURE
2

CITY: SYRACUSE DM/GROUP: 141 DB: G. STOWELL L.F.PARKER LD: GMS PM: L. McBURNEY LYR: ON=*;OFF=*REF*
G:\ENV\CA\SYRACUSE\ACTIVE\064410\2013\01\DWG\064410B01.dwg LAYOUT: 1 SAVED: 4/17/2013 10:49 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C4_D2B-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 4/17/2013 10:49 AM BY: STOWELL, GARY
XREFS:
64410XGA
64410X00
64410X01
64410X7B
IMAGES:
PROJECTNAME: ---



NOTES:

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2. DRAINAGE AREAS ILLUSTRATED BASED ON INFORMATION OBTAINED FROM CITY OF FLINT AND GM, TO THE EXTENT SUCH INFORMATION IS AVAILABLE.
3. OUTFALL 008 AND 100 NO LONGER IN SERVICE.
4. THE MONITORING POINT FOR OUTFALL 011 IS LOCATED IN HAMILTON AVE. A SAMPLE COULD NOT BE COLLECTED DUE TO TRAFFIC HAZARDS.
5. THE MONITORING POINT FOR OUTFALL 012 WAS FOUND TO BE DRY, THEREFORE A SAMPLE WAS NOT COLLECTED.

REVITALIZING AUTO COMMUNITIES
ENVIRONMENT RESPONSE TRUST
BUICK CITY, FLINT, MICHIGAN

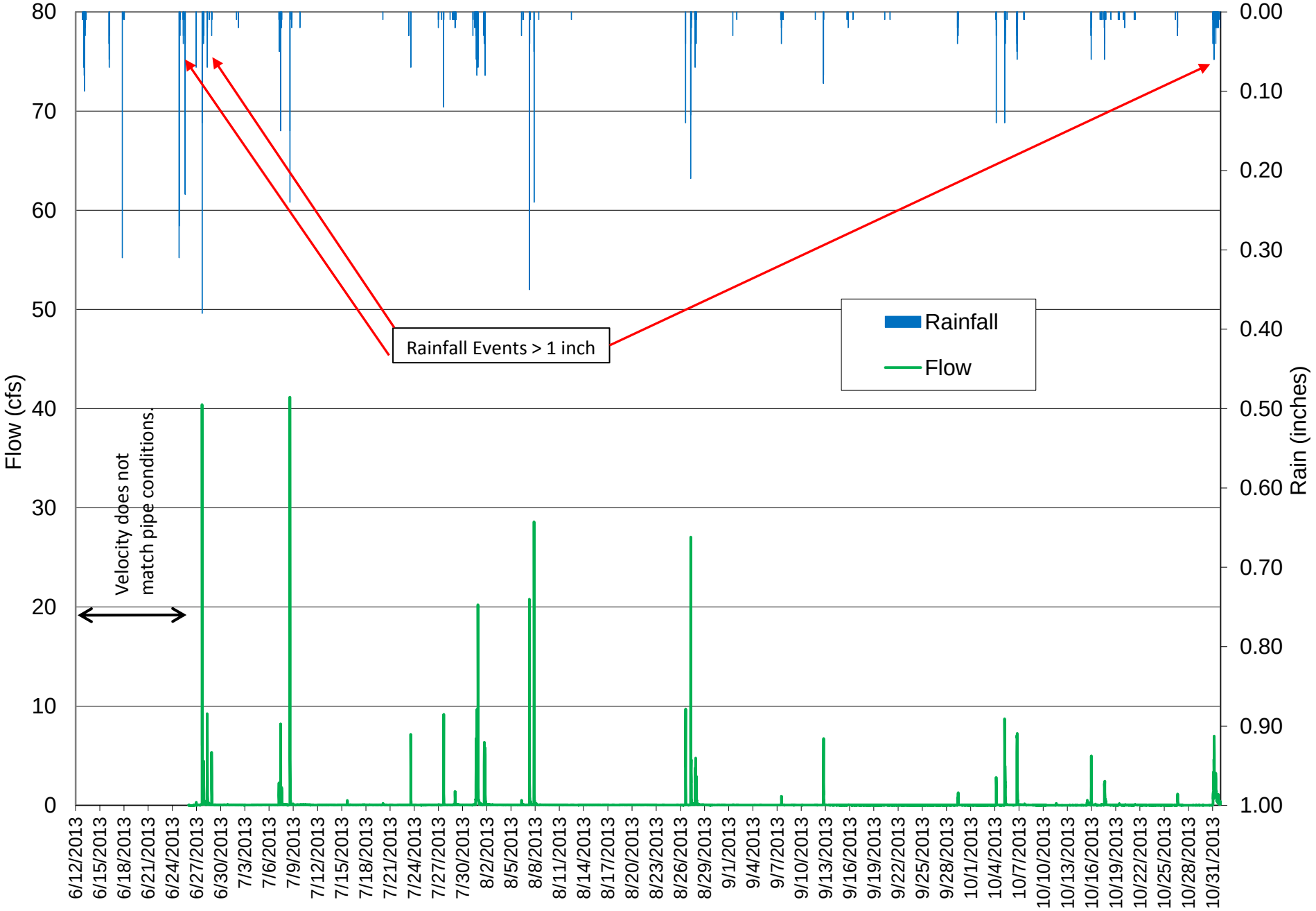
OUTFALL 004 REROUTE FLOW MONITORING LOCATIONS

ARCADIS

FIGURE
3

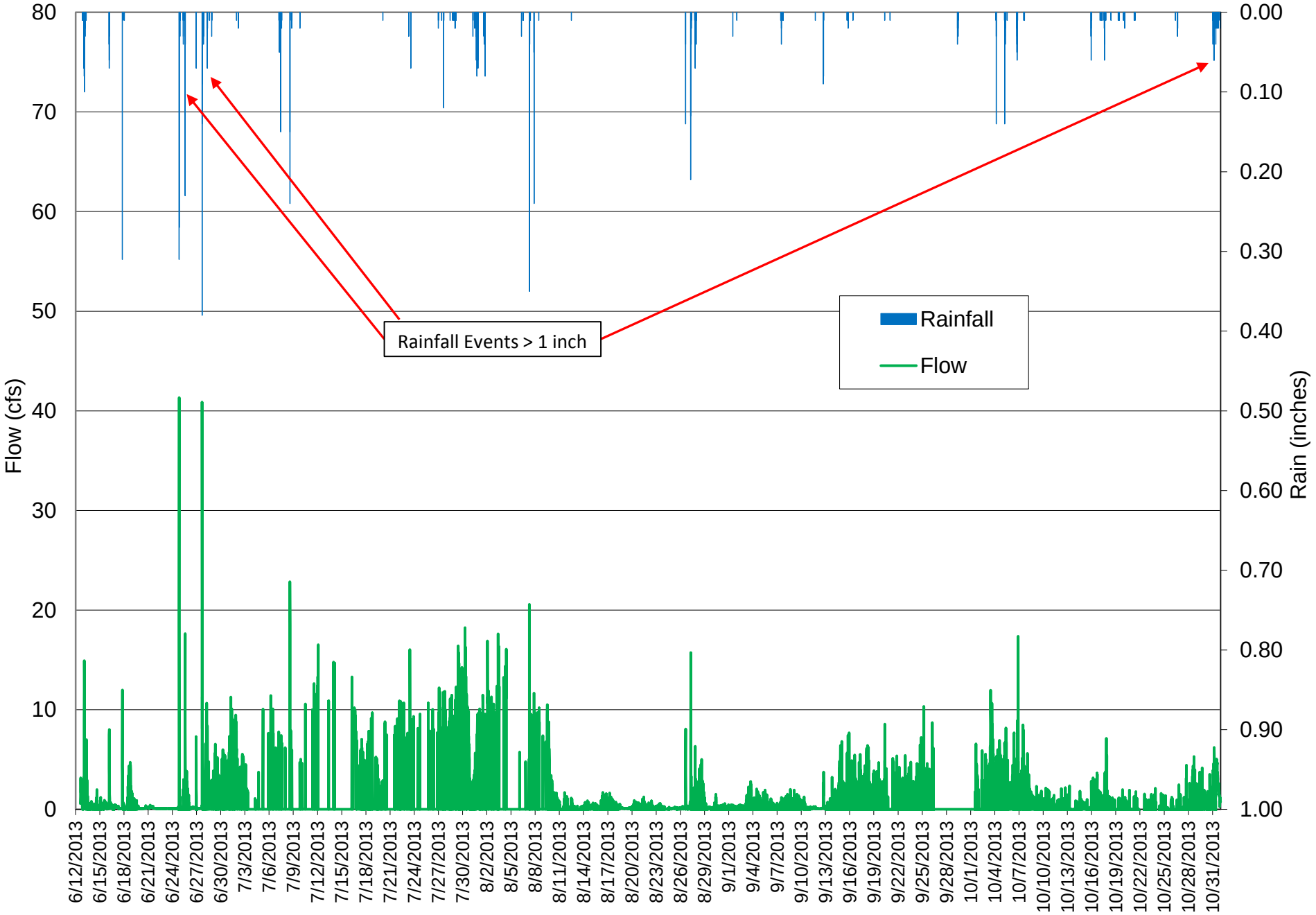
CITY: SYRACUSE DIV/GROUP: 141 DB: G. STOWELL L. FORAKER LD: GMS PM: L. McBURNEY LYR: ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\RETURN-TO\novi\b0064410\2013\13101DWG\64410-epa-fig-3.dwg LAYOUT: 3 SAVED: 7/17/2013 12:35 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: MPI HALF COLOR.CTB PLOTTED: 7/17/2013 12:44 PM BY: FOX, AARON
XREFS:
64410X03
64410X01
64410X00
64410X6A
IMAGES:
PROJECTNAME: ----

Figure 4. Outfall 004 Flow Monitoring Data



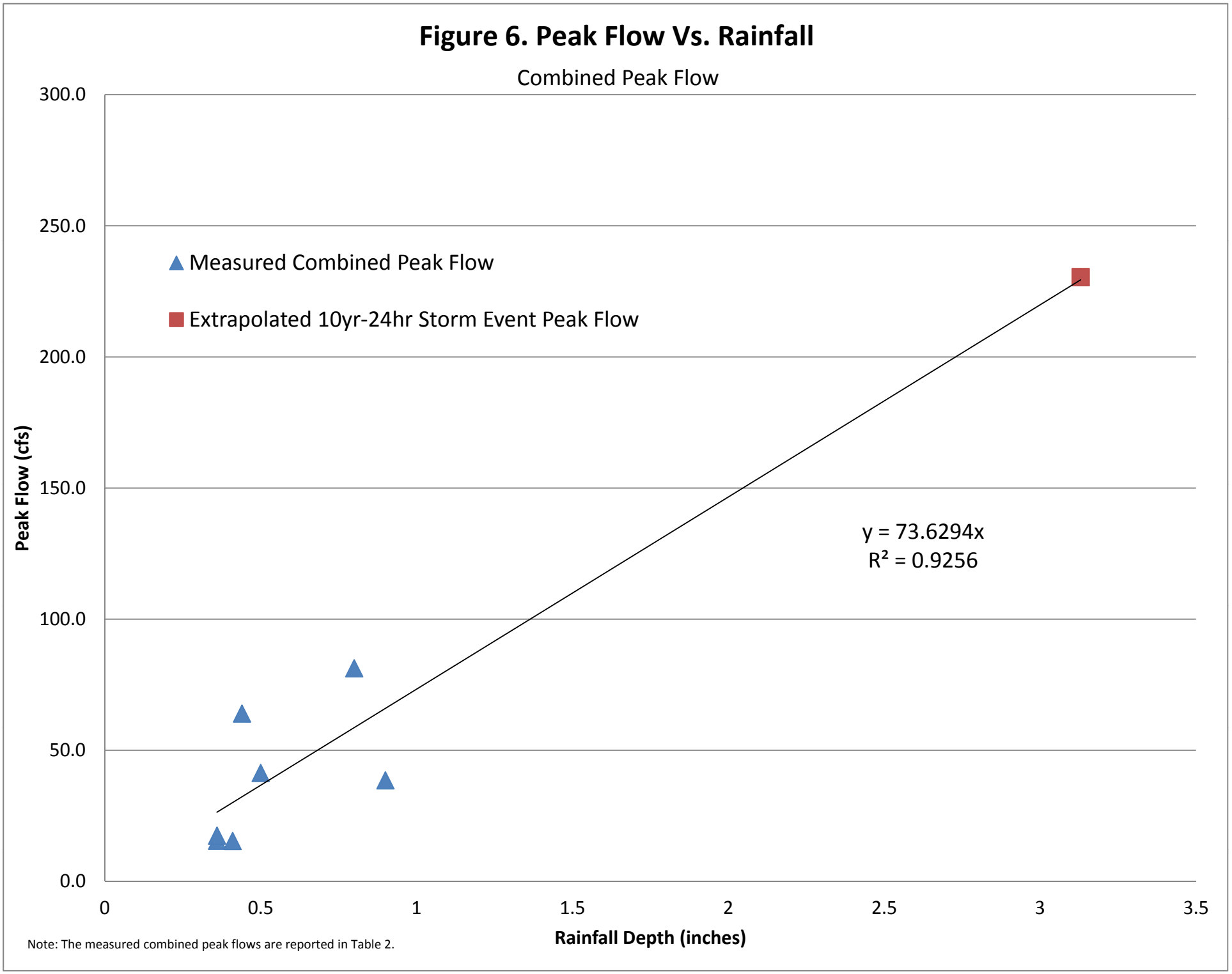
Note: Flow and Rainfall measurements reported every 15 minutes.

Figure 5. Outfall 013 Flow Monitoring Data



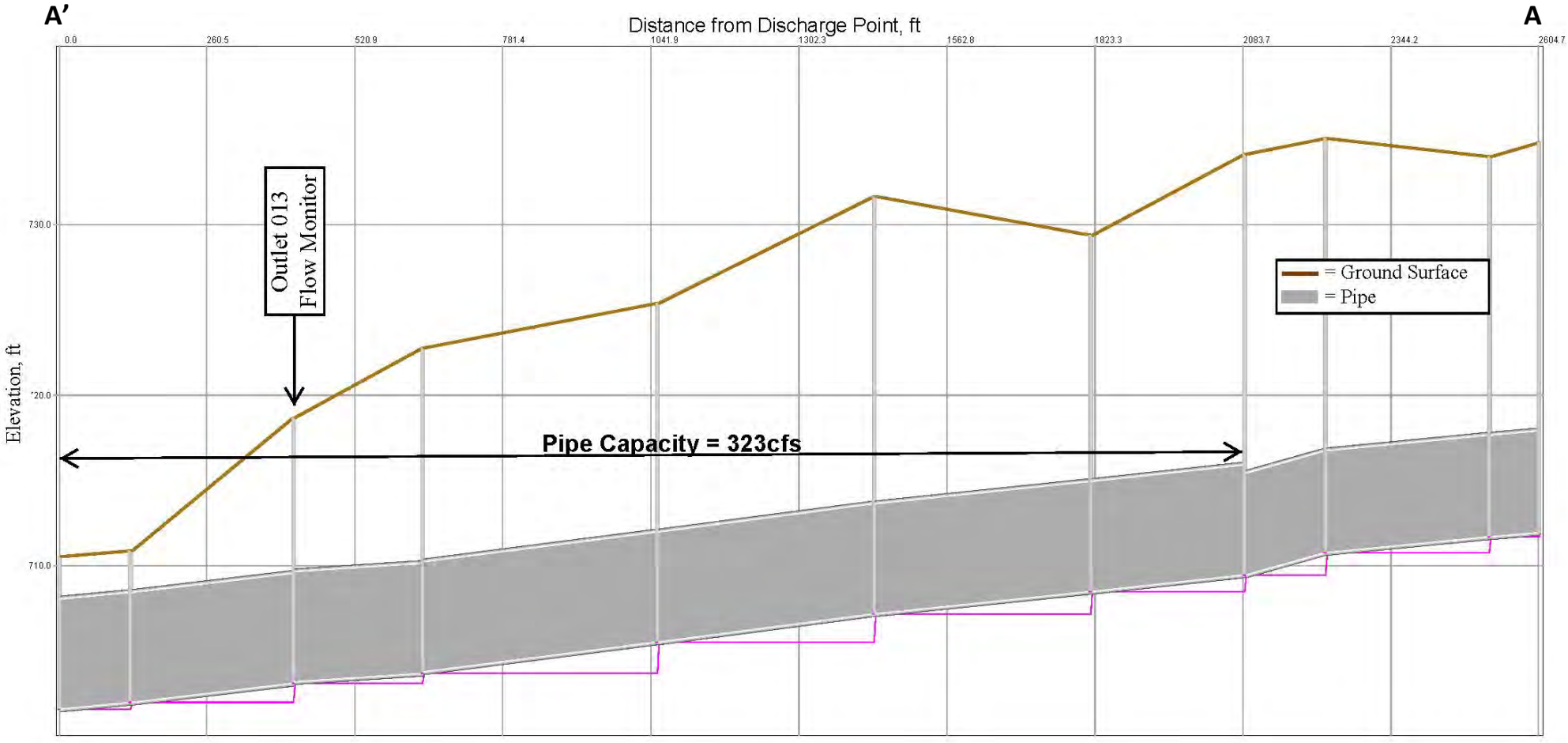
Note: Flow and Rainfall measurements reported every 15 minutes.

Figure 6. Peak Flow Vs. Rainfall



Note: The measured combined peak flows are reported in Table 2.

Figure 7. Outfall 013 Profile



Note: Profile Alignment A-A' is shown on Figure 2.

Tables

Table 1. Rain Event Summary - Hamilton Avenue Rain Gage

Start Date	Duration (hours)	Time between events (hrs)	Total Depth (inches)	Peak (5 min) Intensity	Time of Peak Intensity	Return Period
6/12/2013	11.25	NA	0.81	0.05	6/13/13 1:45	< 2 mo
6/16/2013	1.67	67.92	0.29	0.03	6/16/13 3:40	< 2 mo
6/17/2013	6.00	38.25	0.34	0.24	6/17/13 19:05	< 2 mo
6/24/2013	2.75	163.08	0.63	0.29	6/24/13 20:10	~ 2 mo
6/25/2013	6.33	9.17	0.38	0.12	6/25/13 13:50	< 2 mo
6/26/2013	0.50	32.17	0.13	0.03	6/26/13 22:20	< 2 mo
6/27/2013	5.67	17.50	0.80	0.17	6/27/13 16:20	~ 2 mo
6/28/2013	1.25	9.33	0.20	0.03	6/28/13 7:35	< 2 mo
7/7/2013	8.92	120.92	0.36	0.06	7/7/13 9:50	< 2 mo
7/8/2013	6.25	24.25	0.44	0.17	7/8/13 14:00	< 2 mo
7/23/2013	6.33	77.17	0.12	0.04	7/23/13 13:20	< 2 mo
7/27/2013	6.58	9.58	0.15	0.07	7/27/13 15:20	< 2 mo
7/28/2013	10.50	7.42	0.15	0.01	7/28/13 17:40	< 2 mo
7/31/2013	15.50	50.25	0.90	0.05	7/31/13 21:30	< 2 mo
8/1/2013	4.25	16.83	0.22	0.07	8/1/13 18:40	< 2 mo
8/7/2013	3.25	18.42	0.50	0.18	8/7/13 6:35	< 2 mo
8/7/2013	0.50	10.33	0.29	0.08	8/7/13 20:15	< 2 mo
8/26/2013	0.50	339.67	0.18	0.07	8/26/13 15:35	< 2 mo
8/27/2013	2.33	14.92	0.51	0.14	8/27/13 6:45	< 2 mo
8/27/2013	5.33	9.67	0.39	0.03	8/27/13 19:50	< 2 mo
9/7/2013	7.42	130.25	0.11	0.02	9/7/13 12:25	< 2 mo
9/12/2013	1.83	23.58	0.21	0.07	9/12/13 17:10	< 2 mo
9/29/2013	2.50	200.50	0.16	0.02	9/29/13 8:55	< 2 mo
10/4/2013	1.33	111.92	0.18	0.09	10/4/13 3:45	< 2 mo
10/5/2013	7.92	24.50	0.41	0.06	10/5/13 5:05	< 2 mo
10/6/2013	2.25	28.33	0.36	0.02	10/6/13 17:15	< 2 mo
10/15/2013	1.58	198.50	0.15	0.03	10/15/13 22:50	< 2 mo
10/17/2013	17.25	25.25	0.33	0.04	10/17/13 13:55	< 2 mo
10/31/2013	29.08	104.50	1.07	0.04	10/31/13 3:20	~ 2 mo

Note:

The rainfall data was collected using a tipping bucket rain gage installed at the location on Figure 3.

The table summarizes events equal or greater than 0.1 inches of rainfall

The inter-event duration is 6 hours so more than one event can occur in 24 hours (i.e. 8/27/2013)

The start date is the rainfall beginning and the event duration maybe longer than 24 hours (i.e. 10/31/2013)

The three (3) highlighted storm events experienced at least one inch of rain within a 24-hour period

The Return Period or rainfall frequency is a statistical analysis of the number of times, during a specified period of years, that precipitation of a certain magnitude or greater occurs or will occur at a station; numerically, the reciprocal of the frequency is reported as the return period.

Table 2. Peak Combined Outfall 004 and Outfall 013 Flow Rates

Start Date	Rainfall Depth (inches)	Combined Peak Flow Rate (cfs)	Approximated 10yr-24hr Peak Flow Rate (cfs)
6/12/2013	0.81	N/A	N/A
6/24/2013	0.63	N/A	N/A
6/25/2013	0.38	N/A	N/A
6/27/2013	0.8	81.3	318
7/7/2013	0.36	15.5	135
7/8/2013	0.44	64.0	455
7/31/2013	0.9	27.1	94
8/7/2013	0.5	41.4	259
8/27/2013	0.9	38.6	134
10/5/2013	0.41	15.4	118
10/6/2013	0.36	17.5	152
10/31/2013	1.07	13.2	39

N/A = Not Applicable due to equipment calibration issues. Results not applied.

ARCADIS

Outfall 004 Reroute Investigation Memo

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MEMO

To:
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Dave Favero, RACER

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Christi Kiker, ARCADIS
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From:
Tony Maffeo

Date:
April 24, 2013

ARCADIS Project No.:
B0064410.2013.01301

Subject:
Outfall 004 Reroute Preliminary Evaluation Memo
Buick City Site - Flint, MI

This Outfall 004 Reroute Preliminary Evaluation Memo (Memo) prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan (**Figure 1).**

The goals of the Outfall 004 Preliminary Evaluation were to determine if there is adequate capacity to reroute the existing Outfall 004 drainage upstream of manhole 4-21 (**Figure 2**) into the Outfall 013 storm sewer system. The proposed change would reroute Outfall 004 into the Outfall 013 sewer at the intersection of Leith Street and Industrial Avenue. The evaluation included: a review of the sewer alignment, drainage area topographical data, and precipitation data; development of a model for the Outfall 013 storm sewer hydraulics/flow; and completing a determination of whether the rerouting is hydraulically feasible.

DATA REVIEW

Historic General Motors (GM) maps were reviewed in an effort to determine the drainage areas to the Outfall 004 and Outfall 013 storm sewer systems. For Outfall 004 theses maps only include pertinent information (manhole locations, alignment, and some pipe sizes) starting at the Industrial Avenue and Leith Street intersection and do not include the upstream information. For Outfall 013 the information provided on the historic GM maps include manhole locations, pipe sizes and some invert and rim

elevations for the sections of the pipe running along the Site property boundary to the discharge point. Both Outfalls 004 and 013 discharge stormwater to the Flint River.

Sewer Index maps and sewer record drawings for Outfall 004, 013, and other outfalls in this area were requested from the City of Flint but have not been provided.

The Genesee County 2002 Light Detection and Ranging (LiDAR) data was obtained and used to delineate the potential drainage area upstream of Outfall 004 and Outfall 013. The LiDAR data provides 2-foot topographical data and is recommended by the County to perform stormwater runoff analyses. As the sewer index maps and sewer record drawings were not available, it was assumed that Outfall 004 and Outfall 013 accept all runoff based on topography (**Figure 3**).

EVALUATION

The evaluation was completed in accordance with the *Genesee County Design Standards Requirements – October 2009* and the Soil Conservation Service (SCS) Method was used to determine the peak flow rates. The SCS method utilizes a unit hydrograph, drainage area, runoff curve number, and time of concentration to represent the rainfall-runoff process.

The Genesee County 2002 Light Detection and Ranging (LiDAR) data was obtained and used to delineate the drainage area upstream of the proposed Outfall 004 and Outfall 013 inter-connection and the drainage area upstream of Outfall 013 as indicated in **Figure 3**. The total estimated drainage area is 566.6 acres**.**

The SCS runoff curve number was used to determine the amount of infiltration associated with each subcatchment. The runoff curve number is based on soil type, land use type, and antecedent soil moisture condition. The predominant land use within the drainage area is residential and the average lot size was estimated to be 1/3 acre. The Natural Resources Conservation Service does not provide a Hydrologic Soil Group (HSG) for this urbanized drainage area so the standard is to assume an average HSG of B and C. A runoff curve number of 76.5 was assigned to all subcatchments (page 2-5 in the *Urban Hydrology for Small Watersheds TR-55 Manual*).

The design storm criteria for this size drainage area and type of conveyance system (storm sewer) is the 25-year, 24-hour event. The 25-year, 24-hour rainfall volume for Genesee County is 3.60 inches based on the *Rainfall Frequency Atlas of the Midwest – Bulletin 71*. The SCS Type II rainfall distribution was used to develop the design hyetograph, which is presented in **Figure 4**.

XPSWMM proprietary software was selected to perform the hydrology and hydraulic analysis. The 25-year, 24-hour peak flow rate is 395 cubic feet per second (cfs) and the hydrograph is provided in **Figure 5**.

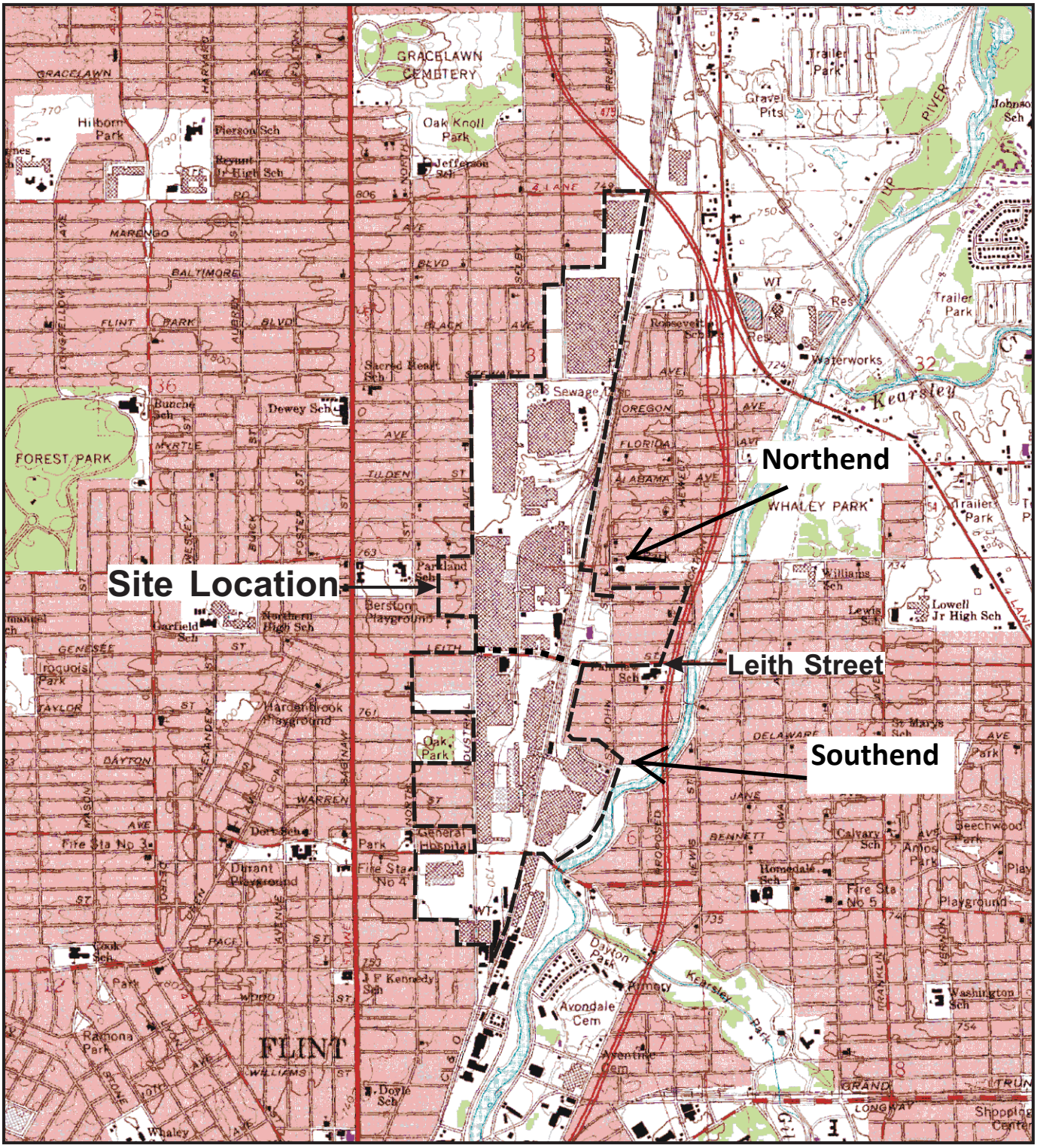
The existing Outfall 013 storm sewer alignment is presented in **Figure 6** and the outfall discharges to the Flint River. The Flint River 10-year water surface elevation (709.7 feet) was used as the downstream boundary condition. Based on historic drawings the Outfall 013 storm sewer ranges in size from 66-inch diameter to a 78-inch diameter pipe. The historic drawings provided only a few storm sewer invert and rim elevations and as such, the attributes for most of the manholes were interpolated (i.e. rim elevations are based on the topography data and invert elevations are based on surrounding pipe information).

Results

Based on the parameters outlined above, when the Outfall 004 drainage area is applied to the current Outfall 013 storm sewer 4 of the 19 manholes modeled surcharge to grade during the 25-yr, 24-hr design event. The total surface flooding volume is 114,200 cubic feet (~3% of the total runoff volume) and a more detailed analysis will likely predict no surface flooding.

Conclusions

At this point a meeting with the City of Flint and their Engineer (Rowe) is necessary to determine what additional information can be made available. Also, the City's requirements for review and approval of the proposed changes need to be outlined. There are additional storm sewers that service this area but their drainage areas could not be verified without more detailed documentation (storm sewer index maps and record drawings). If the total drainage area can be decreased by approximately 35 acres or the percent impervious area decreases, then the peak runoff will be reduced and the sewers will not surcharge to grade. This can be confirmed from actual sewer layout drawings. Based on the presence of other outfall sewer systems in the area not taken into account, the rerouting of Outfall 004 into Outfall 013 is believed to be a feasible alternative.



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

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

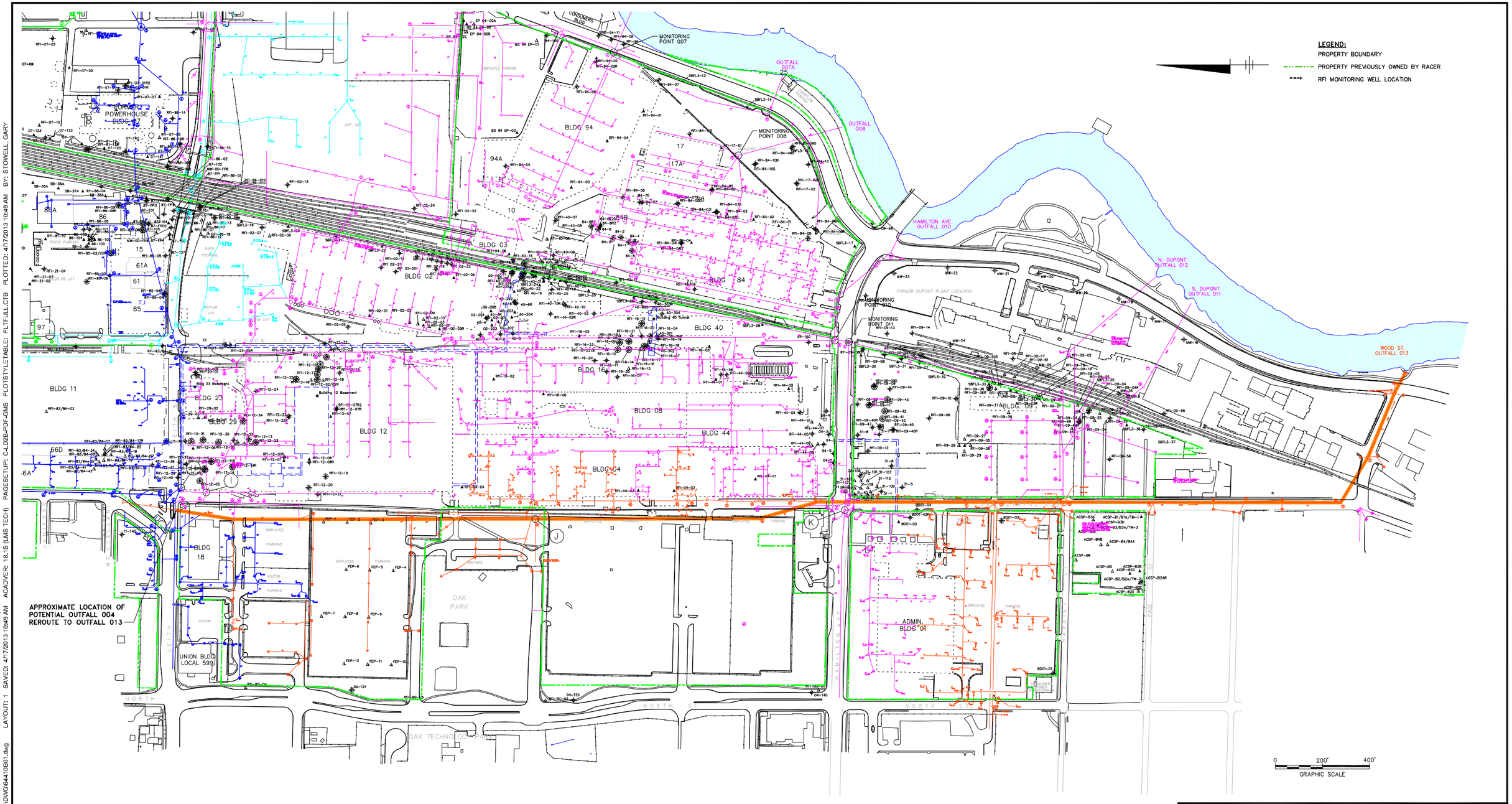
RACER TRUST
BUICK CITY - FLINT, MICHIGAN

SITE LOCATION

ARCADIS

FIGURE
1

05/07/2012 SYRACUSE, NY-ENV/CAD-DJHOWES
B0064410/4012/00104/CDR/64410N02.CDR



NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100.
2. DRAINAGE AREAS ILLUSTRATED BASED ON INFORMATION OBTAINED FROM CITY OF FLINT AND GM, TO THE EXTENT SUCH INFORMATION IS AVAILABLE.
3. OUTFALL 008 AND 100 NO LONGER IN SERVICE.
4. THE MONITORING POINT FOR OUTFALL 011 IS LOCATED IN HAMILTON AVE. A SAMPLE COULD NOT BE COLLECTED DUE TO TRAFFIC HAZARDS.
5. THE MONITORING POINT FOR OUTFALL 012 WAS FOUND TO BE DRY, THEREFORE A SAMPLE WAS NOT COLLECTED.

REVITALIZING AUTO COMMUNITIES
ENVIRONMENT RESPONSE TRUST
BUICK CITY, FLINT, MICHIGAN

OUTFALL 004 REROUTE SITE MAP

ARCADIS

FIGURE
2

CITY: SYRACUSE DIV/GROUP: 141 DB: G. STOWELL L. FORAKER LD: GMS PM: L. McBURNEY LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0064410\2013\01\DWG\64410B01.dwg LAYOUT: 1 SAVED: 4/17/2013 10:49 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 4/17/2013 10:49 AM BY: STOWELL, GARY
XREFS: 64410X3A 64410X01 64410X00 64410X7B IMAGES: PROJECTNAME: ---

Figure 3 – Subcatchments and Genesee County LiDAR

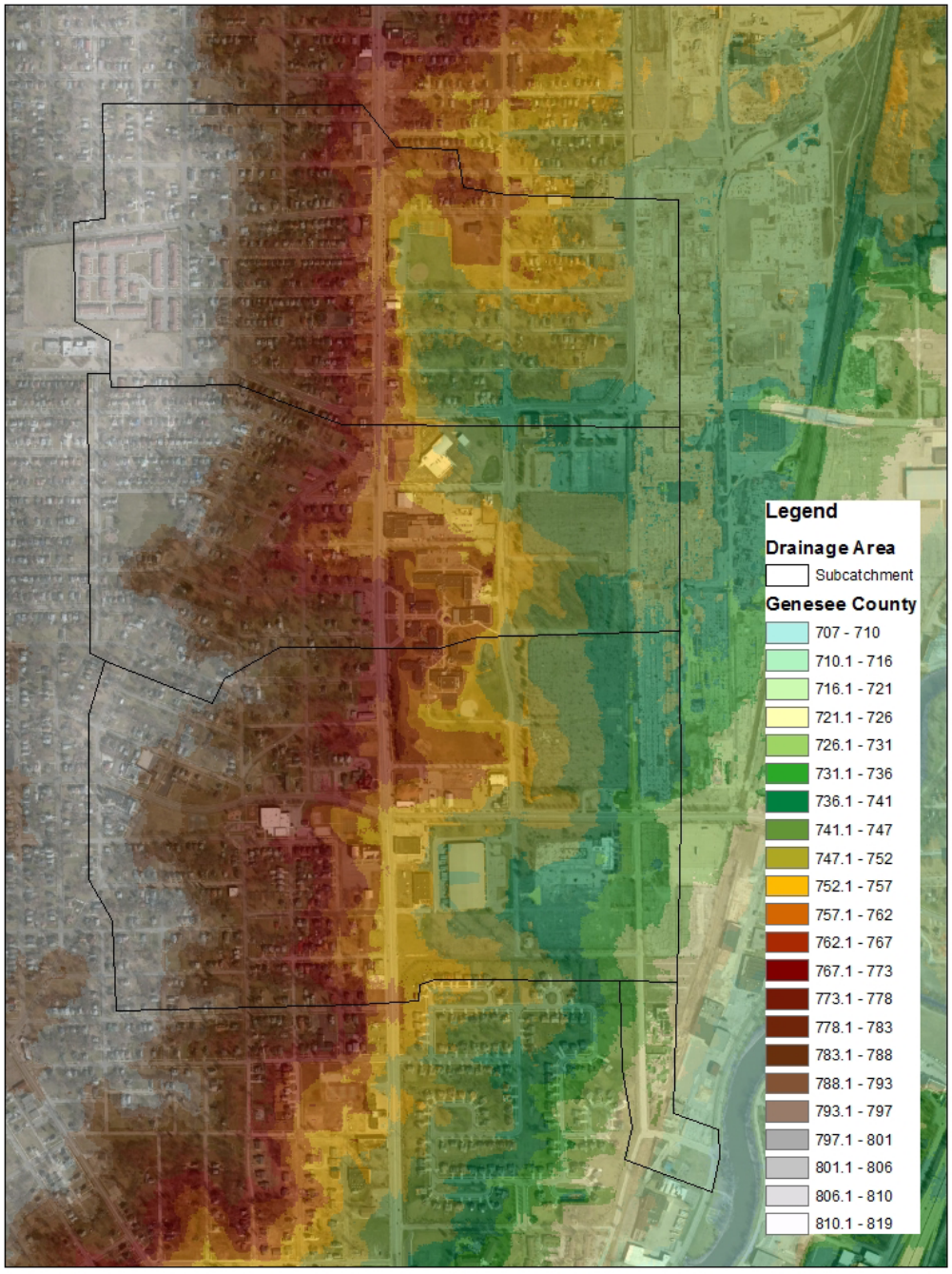


Figure 4 – 25-year, 24-hour Design Rainfall

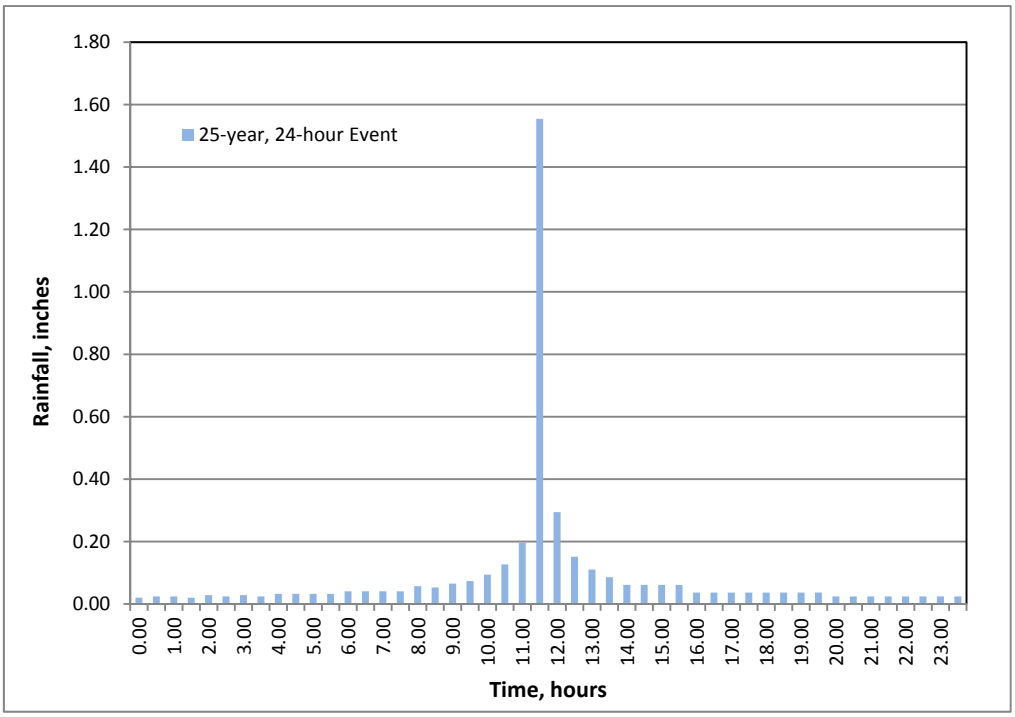


Figure 5 – 25-year, 24-hour Hydrograph

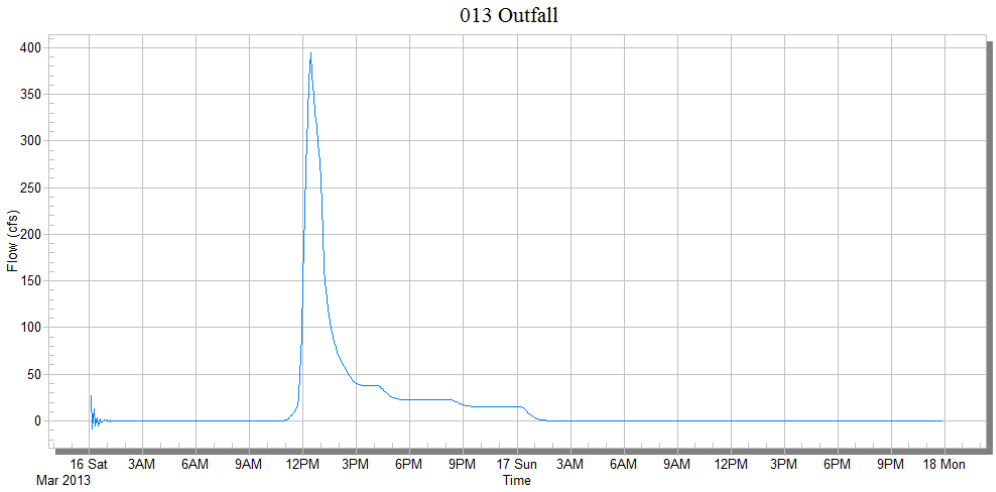
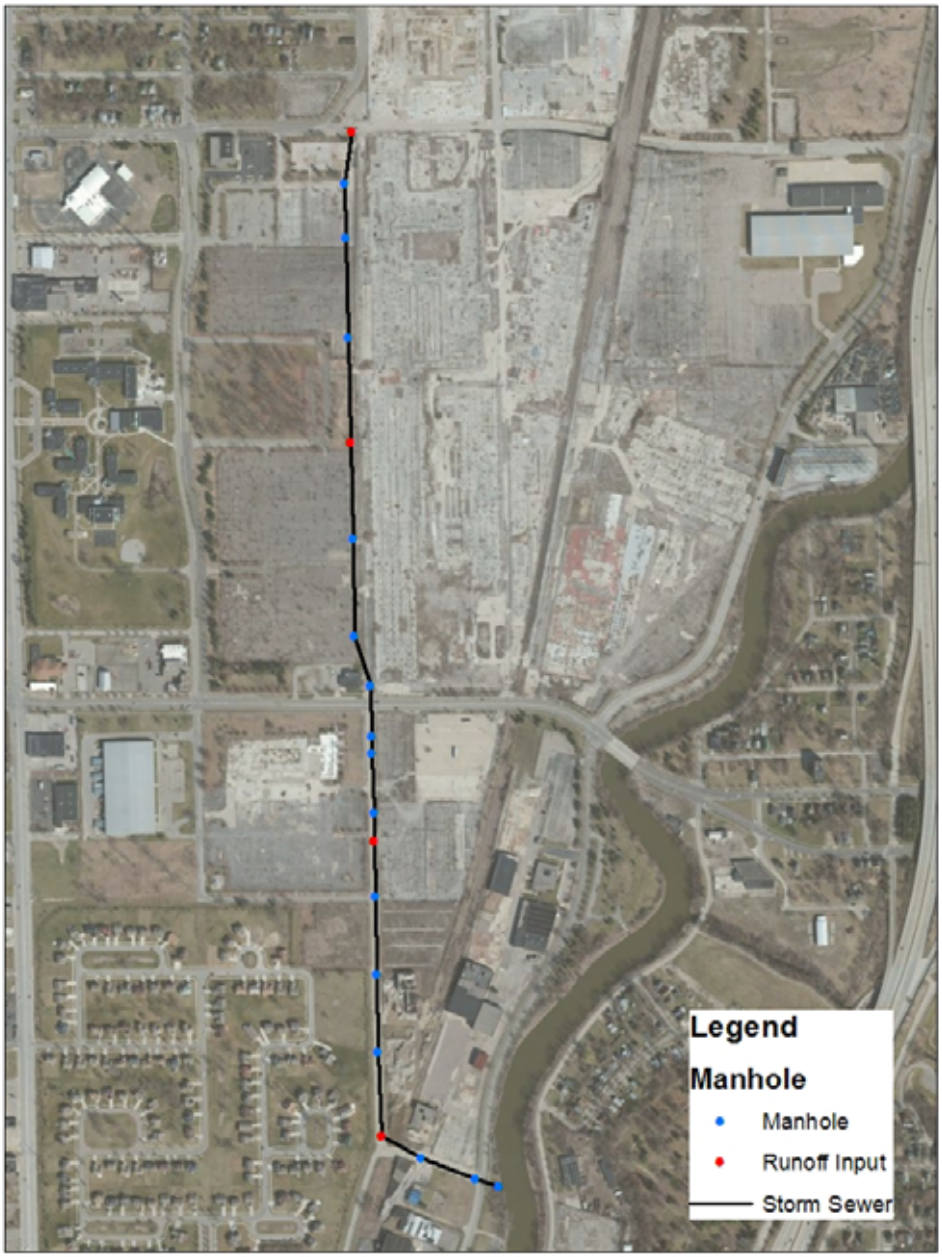


Figure 6 – Existing Outfall 013 Storm Sewer Alignment



Appendix I

Storm Sewer Bulkheading Work Plans

ARCADIS

Buick City Outfall 002 and 005 Bulkhead Work Plan

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Fax 810 229 8837

MEMO

To:
Chris Black, USEPA Region 5

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Chris Peters, ARCADIS
Edward Cote, ARCADIS
Grant Trigger, RACER
Dave Favero, RACER

From:
Micki M. Maki

Date:
May 15, 2012

ARCADIS Project No.:
B0064410.2012.01301

Subject:
Outfall 002 and 005 Storm Sewer Bulkheading Work Plan
Buick City Site, Flint, MI

Introduction

This Outfall 002 and 005 Storm Sewer Bulkheading Work Plan (work plan) was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan. This work plan outlines the approach that will be used to bulkhead storm sewer lines draining to Outfalls 002 and 005 in order to eliminate the Site's contribution to the outfalls. The proposed bulkhead locations for Outfalls 002 and 005 are depicted on Drawing 1. Drawing 2 presents the specification and abbreviations. The Bulkhead Section and Details, the Stewart Street Drain Modification and the Manhole Cap Details are presented on Drawings 3 through 5, respectively.

Background

Oil infiltration has been identified at locations along the Outfall 002 and 005 storm sewer piping systems. In 2011 a boom study was completed along the on Site portion of the Outfall 002 storm sewer system to identify locations where oil is infiltrating the sewer system. Based on the results of the study infiltration appears to be primarily occurring between manholes (MH) 2-21 and 2-18, Drawing 1.

As discussed in the RFI Phase II Report (BBL, 2006) historically oil infiltration was identified at two locations along the Outfall 005 storm sewer. The first area was a pipe draining to the storm sewer inside Factory 83/84. This pipe was permanently filled with concrete at MH 5-19 in 2005-2006. The second area was the French drain system behind the north retaining wall of the Leith Street underpass. To address this issue two 'P-traps' were installed at the manholes located at the western and eastern ends of the French Drain in 2004. However, a sheen continued to appear at Outfall 005. In 2010 a boom study was completed along the Outfall 005 storm sewer to determine where oil was infiltrating the storm sewer. Based on the results of the boom study oil infiltration is occurring at MH 5-5 and appears to be coming from a lateral emptying into manhole from an adjacent property.

Permanent booms and absorbent booms are maintained at the outfalls to collect and contain the oil. Absorbent booms are also maintained in manholes along the Outfall 002 and 005 storm sewers at the down gradient onsite manholes to minimize the amount of oil reaching the discharge point.

Manhole Locations Requiring Bulkheading

Based on the 2011 boom study, oil infiltration was observed at Outfall 002 primarily between MH 2-18 and 2-21, shown on Drawing 1. Bulkheads will be installed both upgradient (MH 2-21) and downgradient (MH 2-18) of the infiltration area, which will prevent oil from leaving the Site and will also serve as a passive collection trench. In addition the lateral lines leading into the manholes, as well as those between the manholes, will be plugged. This will help to both contain the oil and limit the amount of non-oil infiltration entering the section of sewer between the two bulkheads. A gasketed manhole cover will be installed, as indicated on Drawing 5, at manhole 2-18 to provide access for monitoring and oil removal, if needed.

At Outfall 005 a bulkhead will be installed at MH 5-12 which will eliminate contributions from the Site to the Outfall 005 discharge location. Manholes MH 5-11 through MH 5-1 service Leith Street, the UPF property and James P. Cole Boulevard. Please note that bulkheading the manhole locations that service the Leith Street underpass would likely result in flooding.

Outfall 002 and 005 Storm Sewer Bulkheading Installation

Sewer Bulkheading

The bulkheads will be installed on the downstream sides of MH 2-18, 2-21, and 5-12 (Drawing 1). Bulkheads will consist of a reinforced concrete barrier with doweling rods into the existing sewer for added

stability as indicated in Drawing 3. The sewer pipe surface will be roughened so that the barrier will create a hydraulic seal upon completion.

Any water encountered during the construction and curing of the bulkhead will be bypassed to the next available manhole. The bulkhead at MH 2-21 will be installed prior to the bulkheading at MH 2-18 as there are no discharge points downgradient of MH 2-18 onsite.

The existing cover at these manholes will be removed and a new assembly will be installed as indicated on Drawing 5. The new covers will prevent stormwater drainage and allow access.

Pipe Plugging

The lateral pipes entering the storm sewer main at MH 2-18, 2-19, and 2-20 shall be plugged as indicated on Drawing 1. Concrete plugs will be placed in the two 12-inch laterals entering MH 2-18, the one 12-inch lateral entering MH 2-19 and the one 12-inch lateral entering MH 2-20. The concrete plugs will create a hydraulic seal upon completion.

Manhole Capping

Upgradient manhole grates shall be capped with poly plastic, manhole cover plate, and 21AA stone as detailed on Drawing 5 to prevent surface water drainage to the abandoned sewer system. The manhole cover plate shall be installed over the poly plastic in such a manner so that 21AA aggregate installation does not puncture the poly plastic. The manhole caps shall create a hydraulic seal upon completion.

Stewart Street Drain

The existing Stewart Street overpass stormwater drain is connected to a vertical support for the overpass and is piped into the Outfall 002 storm sewer system. This drainage line will be cut and the bottom section will be replaced with a 90 degree elbow of similar material. The existing penetration to the sewer will be plugged as indicated on Drawing 4. Upon completion of the plugging grouted riprap shall be installed directly beneath the new pipe discharge to reduce any potential for erosion of the surface beneath.

Next Steps

A budget amendment will be prepared and submitted to request authorization for budget to implement this work. Upon approval of this Outfall 002 and 005 Storm Sewer Bulkhead Work Plan and a budget amendment, ARCADIS will prepare a request for proposal (RFP) and solicit bids from subcontractors to complete the work.

MANHOLE 2-20
PROVIDE 1-12" AND 1-6" CONC. PLUGS

MANHOLE 2-21
PROVIDE H20 SOLID COVER, 1-42" BULKHEAD, 2-12" CONC. PLUGS

MANHOLE 2-18
PROVIDE 1-54" BULKHEAD, 1-12" CONC. PLUG

MANHOLE 5-12
PROVIDE H20 SOLID COVER, 1-48" BULKHEAD

LEGEND:

- RACER PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED SEPTEMBER 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 250' 500'
GRAPHIC SCALE

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Acad Version : R18.1s (LMS Tech)
User Name : : jmelder
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REV.	ISSUED DATE	DESCRIPTION

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Tel: 248-994-2240 Fax: 248-994-2241
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RACER TRUST
BUICK CITY SITE
FLINT, MICHIGAN

PROJECT MANAGER: MICKI MAKI	DEPARTMENT MANAGER: -
SHEET TITLE: SITE PLAN	LEAD DESIGN PROF.: ELC
TASK/PHASE NUMBER: 01301	CHECKED: ELC
PROJECT NUMBER: B0064410.2012	DRAWN BY: JAM
	DRAWING NUMBER: 1

DESIGN AND CODE INFORMATION

1. ALL CONSTRUCTION SHALL CONFORM TO 2009 INTERNATIONAL BUILDING CODE, MICHIGAN EDITION.

2. VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY CONDITIONS WHICH DO NOT COMPLY WITH PLANS AND SPECIFICATIONS.

3. SHOP DRAWINGS WILL NOT BE REVIEWED BY THE DESIGNER UNTIL AFTER THE GENERAL CONTRACTOR HAS THOROUGHLY REVIEWED THE SHOP DRAWINGS, VERIFIED EXISTING CONDITIONS, AND COORDINATED THE SHOP DRAWINGS WITH OTHER AFFECTED TRADES. SUBMIT FOUR COPIES OF REVIEWED DRAWINGS FOR ENGINEER'S REVIEW. ONLY THREE SETS OF MARKED UP SHOP DRAWINGS SHALL BE RETURNED BY THE DESIGNER. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

4. DO NOT SCALE STRUCTURAL DRAWINGS.

5. LIVE LOADS:
   BULKHEAD DESIGN IS BASED ON 35ft HEAD.

6. SPECIAL INSPECTIONS:
   THIS WORK IS EXEMPT FROM SPECIAL INSPECTIONS BECAUSE "WORK IS OF MINOR NATURE" PER IBC 2009 SECTION 1704.1 EXCEPTION 1.

GENERAL NOTES:

1. EPOXY ADHESIVE FOR DOWELS:

   MANUFACTURERS:
   HILTI CORPORATION, HIT–RE 500 SD.
   OR AS APPROVED.

   A. INJECTABLE TWO–COMPONENT EPOXY ADHESIVE.

   B. DEFORMED REINFORCING BAR.

   C. ADHESIVE ANCHORAGE SYSTEM SHALL BE SEISMIC QUALIFIED PER IBC 2009.

   D. ADHESIVE ANCHORAGE SYSTEM SHALL MEET REQUIREMENTS OF ASTM C881–90, TYPE N, GRADE 2 AND 3, CLASS A, B, C EXCEPT GEL TIMES.

2. BONDING AGENT: 3 COMPONENT, SOLVENT FREE WATER–BASED EPOXY RESIN WITH PORTLAND CEMENT, SIKA CORP., SIKA ARMATEC 110 EPOCEM, OR AS APPROVED.

3. NON_SHRINK GROUT: PRE–MIXED COMPOUND CONSISTING OF NON_METALLIC AGGREGATE, CEMENT, WATER–REDUCING AND PLASTICIZING AGENTS; CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI IN 28 DAYS; BASF MASTERFLOW 713 PLUS, OR AS APPROVED.

4. PREFORMED PLASTIC ADHESIVE WATERSTOP (PPAWS): FEDERAL SPECIFICATION SS–SS–210A; SINGLE– COMPONENT, SELF–SEALING PLASTIC ADHESIVE TYPE, EXTRUDED ROPE FORM BETWEEN TWO PROTECTIVE SILICONE TREATED PAPERS, 1 INCH SQUARE CROSS SECTION, 1 INCH LAP SPLICE, FURNISH WITH PRIMER; SYNKO–FLEX PRODUCTS SYNKO–FLEX, OR AS APPROVED.

5. FORM MATERIALS

   FORMS FOR FINISH CONCRETE: PLYWOOD, METAL, METAL–FRAMED PLYWOOD FACED, OR OTHER ACCEPTABLE PANEL–TYPE MATERIALS, TO PROVIDE CONTINUOUS, STRAIGHT, SMOOTH, SURFACES. FURNISH IN LARGEST PRACTICABLE SIZES TO MINIMIZE NUMBER OF FORM MARKS. SEAL FORM TIE HOLES TO WATERTIGHT CONDITION.

6. FIELD QUALITY CONTROL

   TESTS OF CONCRETE SLUMP, AIR CONTENT AND STRENGTH WILL BE MADE AT THE DIRECTION OF ENGINEER. SAMPLES FOR STRENGTH SHOULD BE TAKEN AS NEAR AS PRACTICAL TO THE POINT OF PLACEMENT INTO THE FORMWORK OR AT A LOCATION WHICH CLOSELY MATCHES THE HANDLING CONDITIONS WHEN THE CONCRETE IS PLACED IN THE FORMS. PRIOR TO THE ADDITION OF A MID OR HIGH RANGE WATER REDUCER, A SLUMP TEST MAY BE MADE FROM A SAMPLE TAKEN FROM THE VERY FIRST CONCRETE OUT OF THE LOAD.

REINFORCED CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318–05).

2. REINFORCING STEEL SHALL BE DEFORMED BARS ASTM A–615 (GRADE 60).

3. THE COMPRESSIVE STRENGTH AT 28 DAYS OF ALL CAST IN PLACE CONCRETE SHALL BE 4000 PSI. MINIMUM

4. LAP SPLICES FOR REINFORCING BARS SHALL BE CLASS B IN ACCORDANCE WITH ACI 318–05, UNLESS NOTED OTHERWISE.

5. CLEAR CONCRETE COVER FOR REINFORCING STEEL:

WALLS	2"
SLAB ON GRADE	2" TOP STEEL
	3" BOTTOM CAST AGAINST GROUND
FOOTINGS	2" TOP & FORMED EDGES
	3" CAST AGAINST GROUND

6. CONCRETE MATERIALS AND ADMIXTURES
   CEMENT: ASTM C150, TYPE I NORMAL PORTLAND TYPE.

   FINE AND COARSE AGGREGATES: ASTM C33 (NORMAL WEIGHT AGGREGATE); MATERIALS CONTAINING DELETERIOUS SUBSTANCES (SPALLING CAUSING)
   ARE NOT ACCEPTABLE.

   WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE.

   AIR ENTRAINMENT: ASTM C260; MASTER BUILDERS (BASF CONSTRUCTION CHEMICALS) MICRO–AIR, OR AS APPROVED.

   CHEMICAL: ASTM C494 TYPE A – WATER–REDUCING, TYPE B RETARDING, TYPE D – WATER–REDUCING AND RETARDING, TYPE F – WATER–REDUCING, HIGH RANGE, TYPE G – WATER–REDUCING, HIGH RANGE AND RETARDING; CONTAINING NO CHLORIDES; MASTER BUILDERS (BASF CONSTRUCTION CHEMICALS), W.R. GRACE, OR AS APPROVED.

   FLY ASH: ASTM C618 CLASS F OR C; LOSS ON IGNITION LESS THAN 3 PERCENT.

   MEMBRANE CURING COMPOUND: ASTM C309, TYPE I–D, CLASS B, CLEAR WITH FUGITIVE DYE WHICH DISAPPEARS APPROXIMATELY 24 HOURS AFTER EXPOSURE TO SUNLIGHT; SPRAY–CURE SAFE CURE CLEAR, EUCLID CHEMICAL COMPANY KUREZ DR, OR AS APPROVED. WET CURING CONCRETE MAY BE SUBSTITUTED FOR CURING COMPOUND.

7. CONCRETE MIX
   CONCRETE PROPORTIONS: COMPLY WITH ACI 301, 4.2.

   PROVIDE CONCRETE TO THE FOLLOWING CRITERIA:
   COMPRESSIVE STRENGTH (7 DAY): 3,200 PSI.
   COMPRESSIVE STRENGTH (28 DAY): 4,000 PSI.
   WATER/CEMENT RATIO (MAXIMUM): 0.42 BY WEIGHT.
   AIR ENTRAINED: NOT APPLICABLE.
   FLY ASH CONTENT: MAXIMUM 25 PERCENT OF CEMENT CONTENT.
   SLUMP (MAXIMUM): 3 INCHES (DUE TO WATER).
   MID OR HIGH RANGE WATER REDUCER:
   ADD AT SITE TO INCREASE SLUMP
   TO 7 INCHES ±1 INCHES.

ABBREVIATIONS

ABANDONED	ABAND
ASPHALT	ASPH
BACK OF CURB	BC
BASE LINE	BL
BASEMENT	BSMT
BEARING	BRG
BENCH MARK	BM
BOTTOM	BOT
CAST IRON	CI
CATCH BASIN	CB
CENTER LINE	CL
CENTER TO CENTER	C/C
CLEANOUT	CO
CLEAR	CLR
CONCRETE	CONC
CONTROL DENSITY FILL	CDF
CORRUGATED METAL PIPE	CMP
CROSS SECTION	X SECT
CURB INLET	CI
DEMOLITION	DEMO
DETAIL DET	DET
DIAMETER	DIA
DRAIN	DR
DROP MANHOLE	DMH
DUCTILE IRON	DI
EASEMENT	ESMT
EDGE OF PAVEMENT	EP
ELECTRIC (AL)	ELEC
ELEVATION	EL
ENGINEER	ENGR
EXISTING	EX, EXIST
FORCE MAIN	FM
GRAD (E) (ING)	GR
GROUND	GND
HEADWALL	HDWL
HORIZONTAL	HORIZ
INSIDE DIAMETER	ID
INVERT	INV
IRON PIPE	IP
LINEAR	LIN
LINEAR FOOT	LF
MANHOLE	MH
MAXIMUM	MAX
MECHANICAL JOINT	MJ
MINIMUM	MIN
MONUMENT	MON
NUMBER	#, NO
PK NAIL	PK
POUNDS PER SQUARE INCH	PPSI
PREFORMED PLASTIC ADHERED WATER STOP	PPAWS
PRESTRESSED CONCRETE	PS CONC
PROPERTY LINE	PL
QUANTITY	QTY
REINFORCE (D) (ING) (MENT)	REINF
REINFORCED CONCRETE	RCONC
REINFORCED CONCRETE PIPE	RCP
RIGHT OF WAY	ROW
SANITARY	SAN
SEWER	SWR
SQUARE FOOT	SQ FT
SQUARE YARD	SQ YD
STATION	STA
STONE	STN
STORM	STM
TELEPHONE	TELE
TEST BOING–XX (E.G. TB–1)	TB–XX
TO BE REMOVED	TBR
THICKNESS	THK
TYPICAL	TYP
UNDERGROUND	UND
UNLESS OTHERWISE NOTED	UON
VALVE BOX	VB
VERTICAL	VERT
WATER MAIN	WM

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Accel Version : R18.1s (LMS Tech)
User Name : jmeeker

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REV. ISSUED DATE DESCRIPTION

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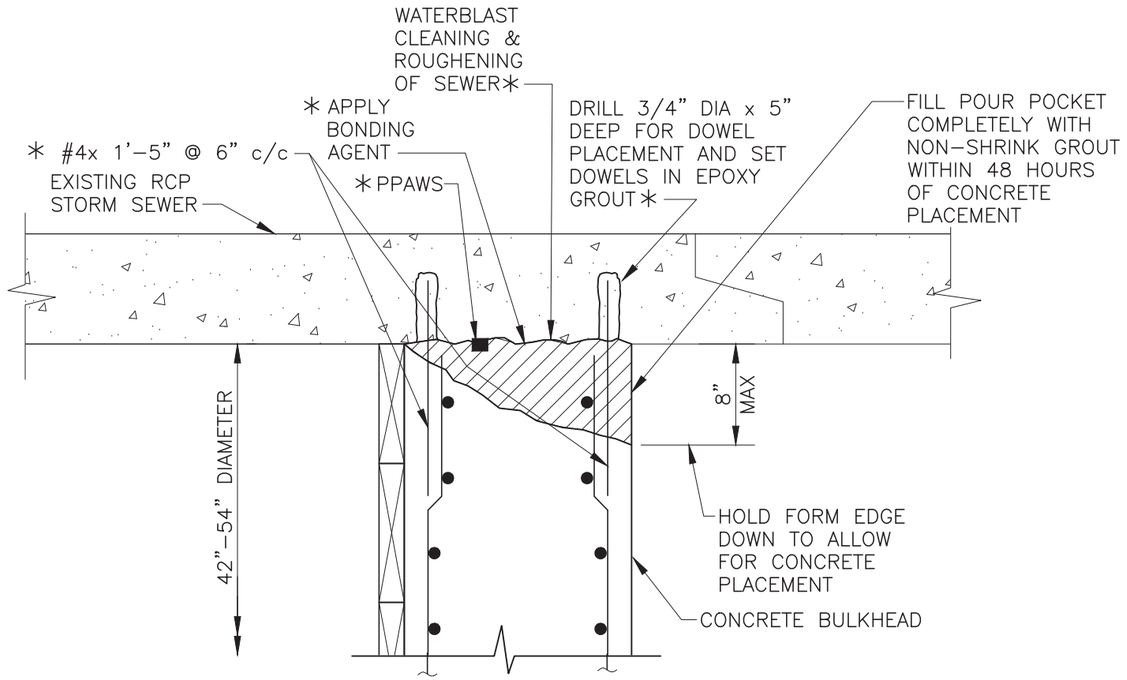
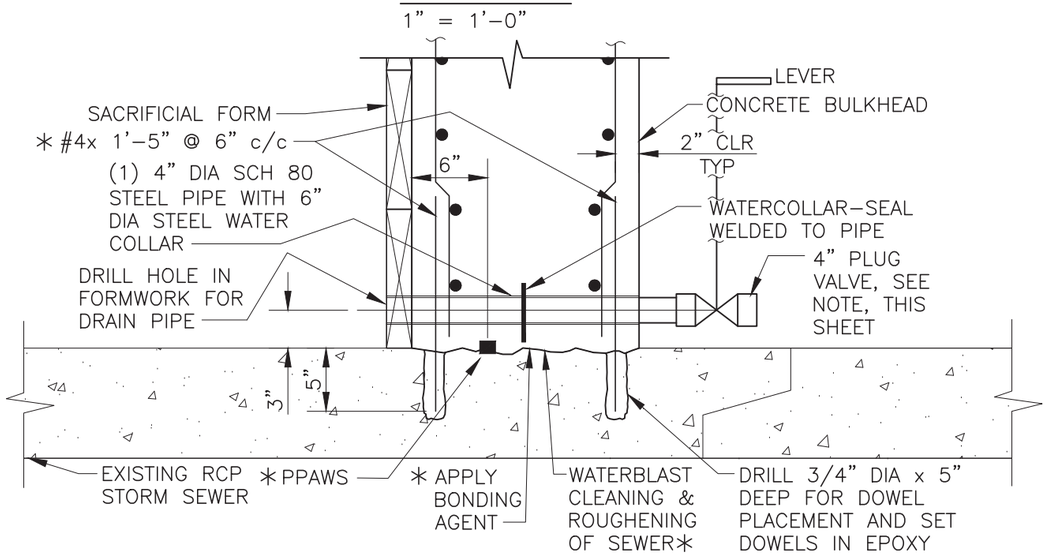
RACER TRUST
BUICK CITY SITE
FLINT, MICHIGAN

PROJECT MANAGER: MICKI MAKI	DEPARTMENT MANAGER: –
LEAD DESIGN PROF.: ELC	CHECKED: ELC
SHEET TITLE: GENERAL NOTES	TASK/PHASE NUMBER: 01301
DRAWN BY: JAM	PROJECT NUMBER: B0064410.2012
DRAWING NUMBER: 2	



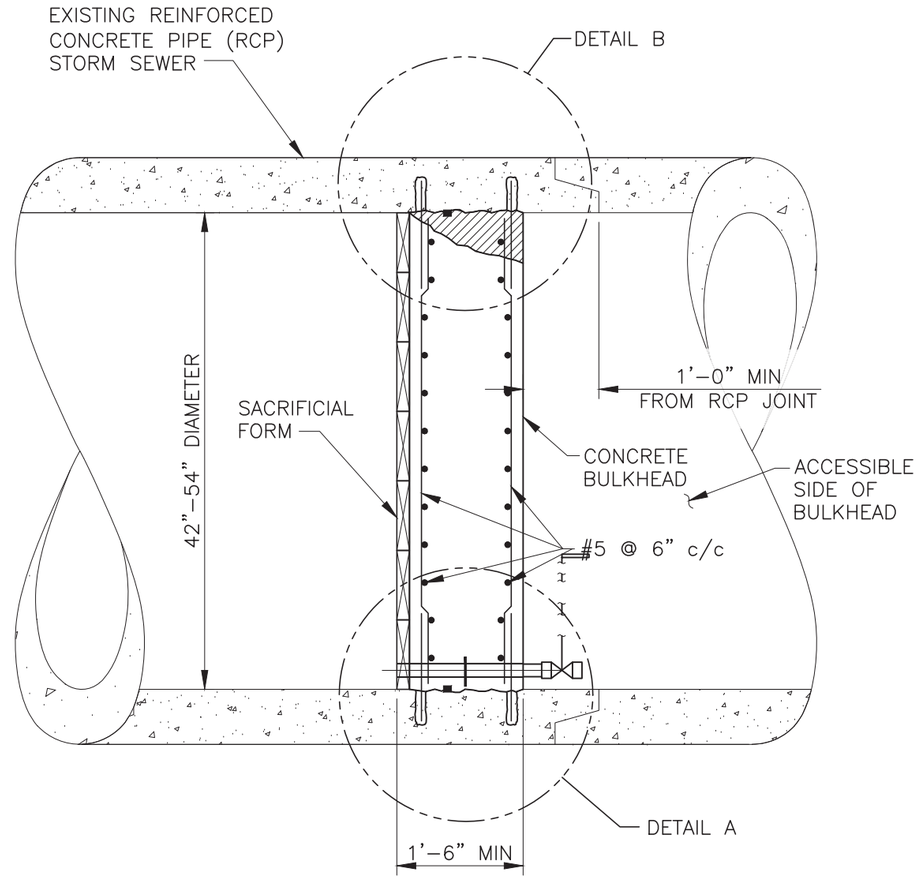
DETAIL B

1" = 1'-0"



DETAIL A

1" = 1'-0"



TYPICAL BULKHEAD SECTION

1/2" = 1'-0"

NOTES:

DRAIN PIPE IS TO BE USED TO ALLOW FLOW TO WEEP UNTIL CONCRETE BULKHEAD HAS ACHIEVED FULL STRENGTH. PROVIDE 4" RESILIENT SEAT PLUG VALVE EQUAL TO USABLUEBOOK.COM ME-26421. PROVIDE LEVER OPERATOR EXTENSION TO 6" BELOW MANHOLE COVER.

* FULL CIRCUMFERENCE OF BULKHEAD.

Current Plotstyle : ByColor
Layout Tabs: 3
Date\Time : Tue, 24 Apr 2012 - 2:06pm
Path\Name : G:\Project\B0064410.2012\Drawing\D-2.dwg
Acad Version : R18.1s (LMS Tech)
User Name : jmosher
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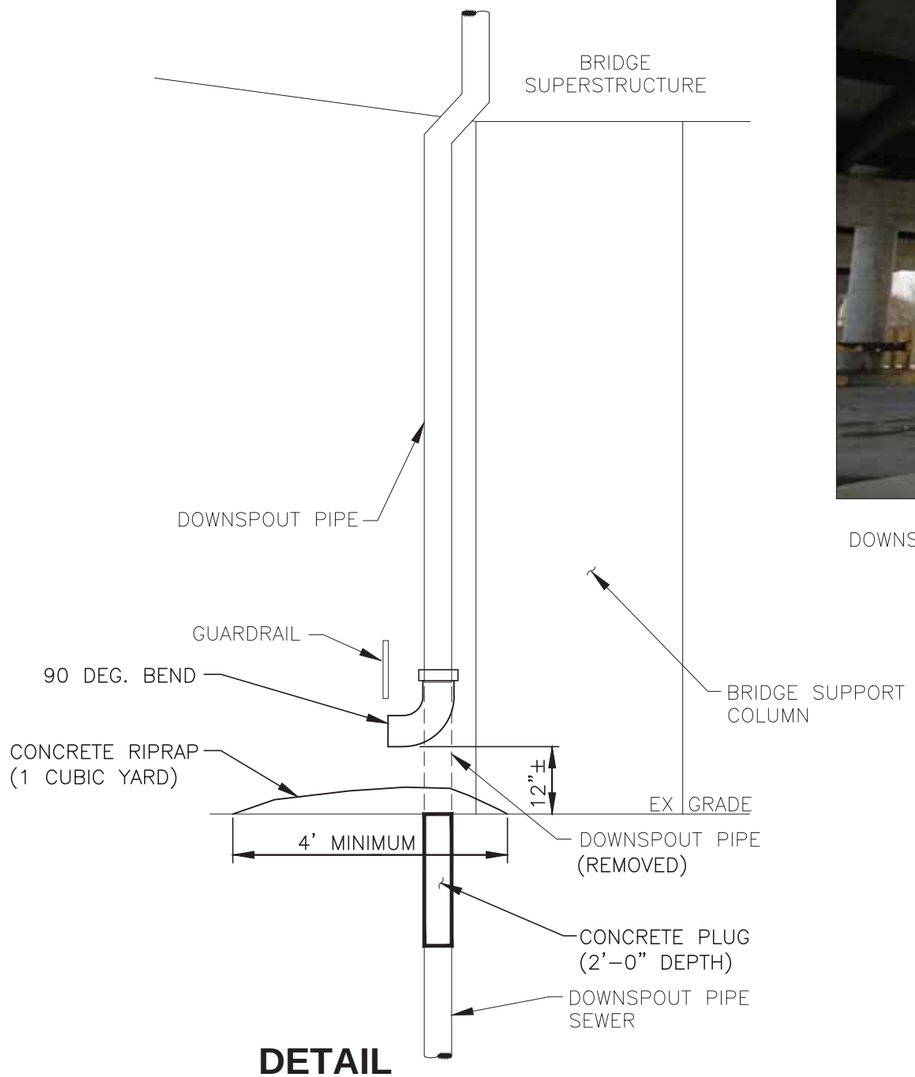
REV.	ISSUED	DATE	DESCRIPTION

KEYPLAN

ARCADIS
ARCADIS G&M OF MICHIGAN, LLC
28550 CABOT DRIVE SUITTE 500
NOVI, MICHIGAN 48377
Tel: 248-994-2240 Fax: 248-994-2241
www.arcadis-us.com

RACER TRUST
BUICK CITY SITE
FLINT, MICHIGAN

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED
MICKI MAKI	-	ELC	ELC
SHEET TITLE: RCP BULKHEAD SECTION & DETAILS		TASK/PHASE NUMBER: 01301	DRAWN BY: JAM
		PROJECT NUMBER: B0064410.2012	DRAWING NUMBER: 3



DETAIL



STEWART STREET DRAIN

NOTES:
1. CUT DOWNSPOUT PIPE 1'-6" ABOVE GRADE.
2. PLUG DOWNSPOUT PIPE SEWER BELOW GRADE (MIN. 2'-0" CONCRETE).
3. PROVIDE APPROX. 1 CUBIC YARD OF CLEAN BROKEN CONCRETE RIPRAP ABOVE DOWNSPOUT PLUG, ABOVE GRADE.
4. INSTALL 90 DEG. BEND TO BOTTOM OF CUT DOWNSPOUT PIPE AIMED OPPOSITE FROM BRIDGE SUPPORT COLUMN.

Acad Version : R18.1s (LMS Tech)
User Name : jmeeker
Date\Time : Tue, 24 Apr 2012 - 2:07pm
Path\Name : G:\Project\B0064410.2012\Drawing\D-2.dwg
Current Plotstyle : ByColor
Layout Tab: 4
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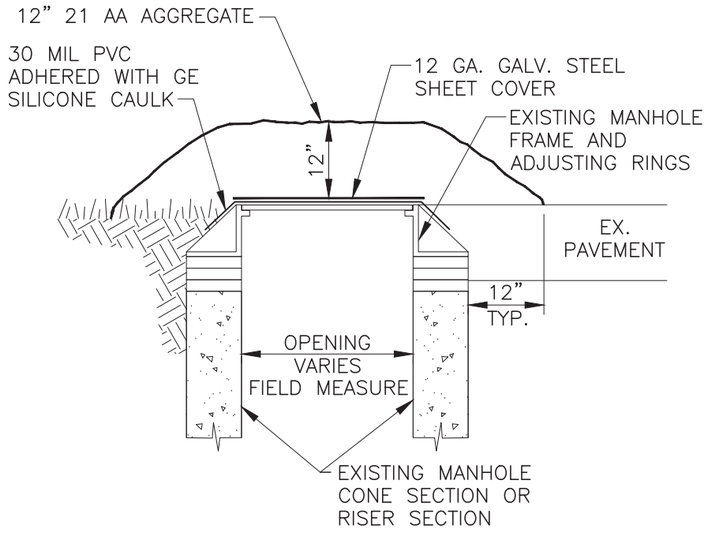
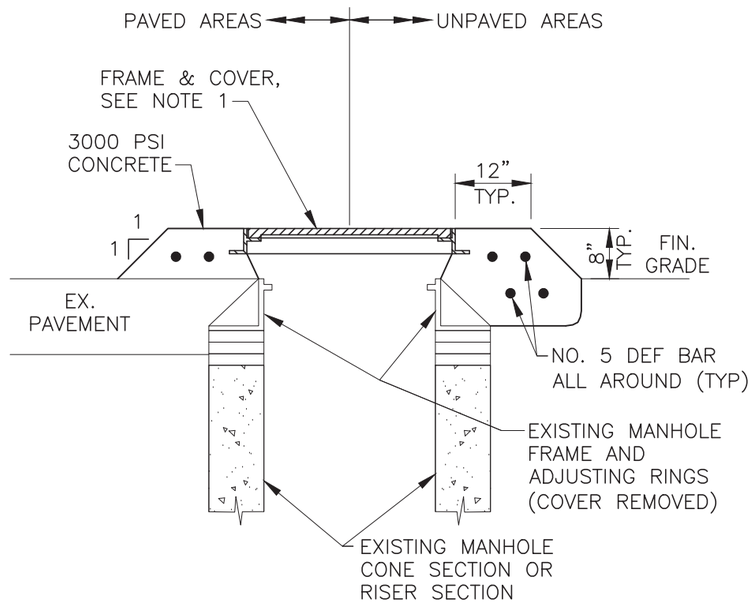
PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED
MICKI MAKI	–	ELC	ELC
SHEET TITLE: STEWART STREET DRAIN		TASK/PHASE NUMBER: 01301	DRAWN BY: JAM
		PROJECT NUMBER: B0064410.2012	DRAWING NUMBER: 4



PROPOSED
1/2" = 1'-0"

MANHOLE CAP DETAIL "A"

NOTE 1:
EAST JORDAN IRON WORKS CAST IRON
FRAME W/ COMPOSITE COVER, 32" OPENING,
COM 1480 ASY



PROPOSED
1/2" = 1'-0"

MANHOLE CAP DETAIL "B"

Autocl Version : R18.1s (LMS Tech)
User Name : jmeeker
Date\Time : Tue, 24 Apr, 2012 - 2:07pm
Path\Name : G:\Project\B0064410.2012\Drawing\D-2.dwg
Current Plotstyle : ByColor
Layout Tab: 5
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KEYPLAN

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RACER TRUST
BUICK CITY SITE
FLINT, MICHIGAN

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED
MICKI MAKI	–	ELC	ELC
SHEET TITLE: MANHOLE CAP DETAILS		TASK/PHASE NUMBER: 01301	DRAWN BY: JAM
		PROJECT NUMBER: B0064410.2012	DRAWING NUMBER: 5

ARCADIS

RACER Buick City Modification to Outfall 002-005 Bulkheading Work Plan

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

MEMO

To:
Chris Black, USEPA Region 5

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

From:
Micki M. Maki

Date:
December 13, 2012

ARCADIS Project No.:
B0064410.2012.01301

Subject:
Outfall 002 and 005 Storm Sewer Bulkheading Work Plan:
Modification to Outfall 005 Bulkhead Location
Buick City Site, Flint, MI

This Modification to the Outfall 002 and 005 Storm Sewer Bulkheading Work Plan (the Work Plan) was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan.

During a recent review of site data to assess possible options for addressing oil infiltration at Outfall 004; one of the options identified was potentially re-routing the Outfall 004 storm sewer main into the Outfall 005 storm sewer. In the event that this option is implemented the connection of Outfall 004 to Outfall 005 would occur at manhole MH 5-12, which is the location currently slated for bulkheading in the Work Plan. This modification includes removing the proposed bulkhead at manhole MH 5-12 and instead placing bulkheads at the two manholes (MH5-13 and MH5-12-1) located upstream of MH5-12. This modification will leave manhole MH5-12 intact so that it remains a viable connection location in the event that it is needed and will still achieve the goal of eliminating the Site's contribution to Outfall 005. In addition, the cost of installing the two smaller bulkheads at MH 5-13 and MH 5-12-1 is expected to be less than the cost of installing the larger bulkhead at manhole MH 5-12.

The proposed modifications are shown on the attached Figure and will include the following:

- The 48 inch bulkhead planned for manhole 5-12 will no longer be installed.
- A 36 inch bulkhead will be installed at manhole 5-13.
- A 30 inch bulkhead will be installed at manhole 5-12-1.

All activities associated with bulkheading along Outfall 005 will be completed in accordance with the processes and procedures presented in the Work Plan.

MANHOLE 2-20
PROVIDE 1-12" AND 1-6" CONC. PLUGS

MANHOLE 2-21
PROVIDE H20 SOLID COVER, 1-42" BULKHEAD, 2-12" CONC. PLUGS

MANHOLE 2-18
PROVIDE 1-54" BULKHEAD, 1-12" CONC. PLUG

MANHOLE 5-12
PROVIDE H20 SOLID COVER, 1-36" BULKHEAD

MANHOLE 5-12
PROVIDE H20 SOLID COVER, 1-48" BULKHEAD
VOID

MANHOLE 5-12-1
PROVIDE H20 SOLID COVER, 1-30" BULKHEAD

LEGEND:

- RACER PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED SEPTEMBER 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 250' 500'
GRAPHIC SCALE

Acad Version : R18.1s (LMS Tech)
User Name : : jmelder
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Date\Time : Tue, 24 Apr 2012 - 2:03pm
Path\Name : G:\Project\B0064410.2012\Drawing\Reference Mxd\04.16.12b\D-01.DWG

Current Pltstyle : ByColor
Layout Tab:

REV.ISSUED DATE DESCRIPTION

KEYPLAN

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RACER TRUST
BUICK CITY SITE
FLINT, MICHIGAN

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED
MICKI MAKI	–		
SHEET TITLE: SITE PLAN		TASK/PHASE NUMBER: 01301	DRAWN BY
		PROJECT NUMBER: B0064410.2012	DRAWING NUMBER: ADD#1-SHEET1

RACER Buick City Outfall 002-005
Bulkhead Work Plan Addendum
No. 1

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

MEMO

To:
Chris Black, USEPA Region 5

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

From:
Micki M. Maki

Date:
December 13, 2012

ARCADIS Project No.:
B0064410.2012.01301

Subject:
Outfall 002 and 005 Storm Sewer Bulkheading Work Plan:
Addendum No. 1 – Outfall 003 and 007 Storm Sewer Bulkheading
Buick City Site, Flint, MI

Introduction

This Addendum No. 1 to the Outfall 002 and 005 Storm Sewer Bulkheading Work Plan (the Work Plan) was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan. The Work Plan was approved by the United States Environmental Protection Agency (U.S.EPA) on November 10, 2012. This Addendum No.1 to the Work Plan (Addendum) includes installing bulkheads and plugs at select laterals along the Outfall 003 storm sewer and the Outfall 007 storm sewer main. The purpose of the Outfall 003 bulkheading activities is to minimize oil contribution to the sewer. The purpose of the Outfall 007 bulkheading is to eliminate the Sites contribution of impacted groundwater/storm sewer water to the outfall.

The activities included in this Addendum will be completed using the same approach presented in the approved Work Plan. The proposed bulkhead/plug locations for Outfalls 003 and 007 are presented on Drawings 1A and 1B.

Manhole Locations Requiring Bulkheading

Based on the 2012 boom study, oil infiltration was observed at multiple locations along the Outfall 003 storm sewer system. This Addendum proposes installing bulkheads and plugs in all laterals entering manholes MH 3-10, MH 3-22, and MH 3-48 which will eliminate their contributions to the Outfall 003 storm sewer. These manhole locations are shown on Drawing 1A.

The boom study identified additional infiltration locations along the Outfall 003 sewer main, which serves upgradient off-Site drainage. Solutions for addressing the infiltration locations along the main are being evaluated. Currently permanent booms and absorbent booms are maintained at Outfall 003 to contain and collect the oil. In addition absorbent booms are also maintained in select manholes along the Outfall 003 storm sewers to minimize the amount of oil reaching the discharge point.

As part of the NPDES Plus Monitoring Program (NPMP) samples were collected on a monthly basis from manhole MH 7-1 or Outfall 007. The majority of the samples collected from the Outfall 007 storm sewer detected total mercury at concentrations exceeding Groundwater/Surface water Interface (GSI) Criteria. In order to eliminate the Sites contribution to Outfall 007 a plug will be installed at manhole MH 7-1. This manhole location is shown on Drawing 1B.

Outfall 003 Storm Sewer Bulkheading Installation

All activities associated with bulkheading along Outfall 003 will be completed in accordance with the processes and procedures presented in the Work Plan.

Sewer Bulkheading

At manhole MH 3-10 a bulkhead will be installed in the 42-inch lateral where it enters MH 3-10 (Drawing 1A). Typical details and specifications are presented in Drawings 2 and 3 of the Work Plan.

Pipe Plugging

The lateral pipes entering the storm sewer main at manholes MH 3-22 and MH 3-48 shall be plugged as indicated on Drawing 1A. At MH 3-22 concrete plugs will be placed in the one 18-inch, one 24-inch, and two 4 to 6-inch laterals entering the manhole. At MH 3-48 a concrete plug will be placed in the one 20-inch lateral entering the manhole. Typical details and specifications are presented in Drawings 2 and 3 of the Work Plan.

Manhole Gasket Installation

At manhole MH 3-48-1 the existing cover will be removed and a new gasketed manhole cover will be installed. The gasketed manhole cover will allow access if necessary. Typical details and specifications are presented in Drawings 2 and 5 of the Work Plan.

Outfall 007 Storm Sewer Bulkheading Installation

All activities associated with bulkheading along Outfall 007 will be completed in accordance with the processes and procedures presented in the Work Plan.

Pipe Plugging

The influent pipe entering the storm sewer main at manhole MH 7-1 shall be plugged as indicated on Drawing 1B. At MH 7-1 a concrete plug will be placed in the 24-inch pipe entering the manhole. Typical details and specifications are presented in Drawings 2 and 3 of the Work Plan.

Manhole Capping

Upgradient manhole grates located along each of the laterals being bulkheaded or plugged shall be capped in accordance with the Work Plan. Typical details and specifications are presented in Drawings 2 and 5 of the Work Plan.

Next Steps

Upon approval of this Addendum No. 1, ARCADIS will begin scheduling this work.

Following completion of this work additional evaluation will be completed to determine whether additional bulkheads or oil minimization activities are necessary.

MANHOLE 2-21
PROVIDE H_20 SOLID COVER,
1-42" BULKHEAD,
2-12" CONC. PLUGS

MANHOLE 2-20
PROVIDE 1-12" AND
1-6" CONC. PLUGS

MANHOLE 2-18
PROVIDE 1-54" BULKHEAD,
1-12" CONC. PLUG

MANHOLE 3-22
PROVIDE 1-24" CONC. PLUG,
1-18" CONC. PLUG, AND
2-6" CONC. PLUGS

MANHOLE 3-10
PROVIDE 1-42" BULKHEAD
AND 1-24" CONC. PLUG

MANHOLE 5-12-1
PROVIDE H2O SOLID
COVER 1-30" BULKHEAD

MANHOLE 3-48-1
PROVIDE H2O
SOLID COVER

MANHOLE 3-48
PROVIDE 1-20"
CONC. PLUG

MANHOLE 5-13
PROVIDE H2O SOLID
COVER, 1-36" BULKHEAD

LEGEND:

- MLC PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 250' 500'
APPROXIMATE GRAPHIC SCALE

RACER TRUST
FORMER GENERAL MOTORS CORPORATION NORTH AMERICAN OPERATIONS FACILITY (OTHERWISE KNOWN AS BUICK CITY)

SITE PLAN

ARCADIS

FIGURE
1A

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G.STOWELL K.DAVIS LD: G.STOWELL L.FORAKER PM: M.MAKI LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIVE\006441010\2012\01302\DWG\64410B02.DWG LAYOUT: 1A SAVED: 12/13/2012 11:03 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/13/2012 11:03 AM BY: DAVIS, KATHI
XREFS: 64410X01 64410X00 64410X02 64410X7A IMAGES: PROJECTNAME: ---

MANHOLE 7-1
REPLACE MANHOLE
COVER WITH H2O SOLID
COVER 1-24" PLUG

LEGEND:

- MLC PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 200' 400'
GRAPHIC SCALE

RACER TRUST
FORMER GENERAL MOTORS CORPORATION NORTH AMERICAN OPERATIONS FACILITY (OTHERWISE KNOWN AS BUICK CITY)

SITE PLAN

ARCADIS

FIGURE
1B

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL K.DAVIS LD: G. STOWELL L. FORAKER PM: M. MAKI LYR: ON=*;OFF=*REF*,*IHST_SB*,*IRFI_SS_PIEZ,IHY_LAKE_POND-FILLED,IPROPERTY,ISHD-BUILDING,,INAPL_EVID,INAPL_OBS,INAPL_OBS-HIST,ILNAPL-SHD
G:\ENVCAD\SYRACUSE\ACTIVE\ACTIVE\B006441\0\2012\013002DWG\64410B03.dwg LAYOUT: 1B SAVED: 12/12/2012 5:08 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2012 5:15 PM BY: DAVIS, KATHI

IMAGES: PROJECTNAME:

XREFS:
64410X01
64410X00
64410X02
64410X7A
64410X6A

Appendix J

WMU Closure Correspondence from MDEQ

RECEIVED JAN 17 2013

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

January 15, 2013

Mr. Grant Trigger
Cleanup Manager
RACER Trust
2930 Ecorse Road
Ypsilanti, Michigan 48198

Dear Mr. Trigger:

SUBJECT: Acceptance of Northend and Southend Certification of Closure Response Activities at RCRA Waste Management Units (WMUs) (Certifications); RACER Trust, Former General Motors Corporation North American Operations Facility; MID 005 356 712

The Michigan Department of Environmental Quality (MDEQ), Office of Waste Management and Radiological Protection (OWMRP), has reviewed the April 2, 2012, Certifications for WMUs 2, 4, 5, 6, 7, 8, and 10 that were submitted on your behalf by ARCADIS. Based on our review the OWMRP has determined that the closures of all the WMUs are complete pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the administrative rules promulgated thereto, MAC R 299.9101, *et. seq.*

Clean closure was accomplished for WMUs 6 and 8. However, there is residual contamination associated with WMUs 2, 4, 5, 7, and 10. WMUs 7 and 10 will be addressed through incorporation into the site-wide corrective action being conducted pursuant to the Corrective Action Consent Order (No. R8H-5-00-02) with the U.S Environmental Protection Agency (U.S. EPA) and by placing restrictive covenants for each unit on groundwater usage and soil relocation. WMUs 2, 4, and 5 will be addressed by placing restrictive covenants for each unit on groundwater usage and soil relocation.

In addition, the MDEQ previously agreed in a July 27, 2009, letter that Building 23 Container Storage was clean closed and that Factory 10, Building 20, will be addressed through incorporation into the site-wide corrective action being conducted pursuant to the Corrective Action Consent Agreement with the U.S. EPA and by placing restrictive covenants for each unit on groundwater usage and soil relocation.

In accordance with R 299.9703(5), this acceptance of the closure constitutes a release from the requirement to maintain financial assurance for closure of WMUs 2, 4, 5, 6, 7, 8, and 10, along with Building 23 and Factory 10, Building 20. This acceptance of closure does not constitute a release from any corrective action responsibilities that RACER Trust may have under Part 111 or the federal Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984.

Please note that if there are any property ownership transactions planned, that the required notifications pursuant to R 299.9522 and R 299.9525 along with paragraph 64 of the RACER Trust settlement must be made to the OWMRP and U.S. EPA, as appropriate.

If you have any questions or comments, please contact Mr. Peter Quackenbush, Hazardous Waste Section, OWMRP, at 517 373 7397; quackenbushp@michigan.gov; or you may contact us at MDEQ, OWMRP, P.O. Box 30241, Lansing, Michigan 48909 7741.

Sincerely,

Elizabeth M. Browne, Chief
Office of Waste Management and Radiological Protection
517-373-9523

cc: Mr. Chris Peters, ARCADIS
Mr. Mike Brennan, ARCADIS
Mr. Dave Favero, RACER Trust
Mr. Chris Black, Environmental Protection Agency, Region 5
Mr. William Yocum, MDEQ
Mr. Daniel Dailey, MDEQ
Mr. Peter Quackenbush, MDEQ
Mr. Dale Bridgford, MDEQ
HWS-C&E File

Appendix K

Northern Parcel Sampling Results Memo

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, EPA

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

From:
Micki Maki

Date:
December 4, 2013

ARCADIS Project No.:
B0064410.2013.01101

Subject:
Northern Parcel Sampling Results Memo
Buick City Site - Flint, MI

This memorandum was prepared by ARCADIS on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) for the Buick City Site (Site) located in Flint, Michigan to summarize the field activities and laboratory analytical results of the Northern Parcel Sampling Event. The purpose of this sampling event was to provide a snapshot of the current Site conditions at the Northern Parcel, as much of the Site data is 8 to 10 years old. The initial sampling event was completed in October 2012 and delineation sampling was completed March through June 2013 to define the extents of manganese impacts identified at two sampling locations. An additional sampling event was completed in September 2013 to investigate two former hydraulic lifts located at the north end of the former Building 38 slab. This memo also provides a summary of the historic use of the Northern Parcel and the data collected during the RFI and previous investigations.

The approximate location of the Northern parcel is identified on the Site Location Map presented as **Figure 1**.

History of Northern Parcel

The Northern Parcel historically included a single story structure (Building 38) and a parking lot. Building 38 was constructed in 1964 and was slightly over 200,000 square feet. The building was primarily used as a manufacturing warehouse for vehicle engines, vehicle washing and waxing, vehicle emissions testing

and light vehicle repair. The area immediately surrounding the exterior of the building was predominantly paved with asphalt and was used for new vehicle parking. A portion of Building 38 was formerly used as a "climate-controlled soak room' for vehicle emission testing. The building was demolished in 2010, with the slab and surrounding asphalt parking lots remaining in place.

During the RFI one area of interest (AOI) 38-1 was identified related to the Building 38 Area. This area involved the northern portion of Building 38, which housed several process waste sumps containing oil and/or oily sediment, several car wash trenches containing oily sediment, and several hydraulic car lifts. Additionally, an 8,000-gallon fuel oil UST was located within AOI 38-1 near the northwest corner of Building 38. Although previous investigation reports identified an 8,000 gallon UST located at AOI 38-1, no supporting documentation of the installation or closure of the tank can be found. It is likely that this tank was not installed

Historic documents also indicated the presence of a 500-gallon fuel oil UST formerly located along the north side of Building 38, and two former gasoline USTs identified South of Building 38; however, the closure documentation indicated that no releases occurred related to these tanks.

2012 Groundwater Sampling

A monitoring well inventory was completed at the Northern Parcel prior to sampling to determine which wells were remaining following demolition activities. Monitoring wells RFI-36-02, RFI-38-04, RFI-38-06, 36-101 and 38-120 were located and found to be in good condition. Monitoring wells RFI-38-05 and 36-121 could not be located. Monitoring well locations are presented on **Figure 2**.

The monitoring wells located in the Northern Parcel have not been sampled in over 5 years; therefore, re-development was completed prior to sample collection. Approximately one week following well development groundwater samples were collected and submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and metals.

Groundwater Sampling Results

The groundwater analytical data were compared to the Nonresidential Michigan Department of Environmental Quality (MDEQ) Part 201 Generic Cleanup Criteria and Screening Levels including Non-residential Drinking Water criteria (NDW); Groundwater-Surface Water Interface criteria (GSI);

Groundwater Contact criteria (GCC); Non-residential Groundwater Volatilization to Indoor Air criteria (NGVIA); Groundwater Acute Inhalation (GAI); Water Solubility criteria (WS); and Flammability and Explosivity criteria (FE). Groundwater data were not compared to residential criteria as the parcel is zoned for non-residential use.

Table 1A presents the groundwater data collected during the 2012 sampling event. Analytes which were detected at concentrations that exceed criteria are further discussed below. Please note that RFI-36-02 was also sampled during the 2012 annual groundwater sampling event. The results from that sampling event are also included in Table 1A and discussed below.

- The groundwater samples collected from monitoring wells 36-101, 38-120, and RFI-38-04 do not exceed any criteria.
- The groundwater samples collected from RFI-36-02 and RFI-38-06 exceed the aesthetic based NDW for manganese; however, neither sample exceeds health-based NDW criteria for manganese.
- The groundwater sample collected during the annual groundwater sampling event from RFI-36-02 exceeded GSI and NDW for arsenic.
- The groundwater sample collected from RFI-38-06 also exceeded NDW for trichloroethene.

Table 1B presents the historic groundwater data from the Northern Parcel. In addition the 2012 data are also presented on Table 1B for reference. Analytes which were detected in the historic samples at concentrations that exceed criteria are further discussed below.

- The historical groundwater samples collected from monitoring well 36-121 and RFI-38-05 did not exceed any criteria.
- One of the historical groundwater samples collected from monitoring well 36-101 exceeded GSI criteria for mercury; however, the 2012 sample did not exceed criteria.
- The one historic groundwater sample collected from 38-120 exceeded GSI criteria for silver; however, the 2012 sample did not exceed criteria.
- One of the historic groundwater samples collected from monitoring well RFI-36-02 exceed GSI and NDW for arsenic (total and dissolved) and nickel (total); however, the 2012 sample did not exceed criteria for nickel (total).
- One of the historic groundwater samples collected from monitoring well RFI-38-04 exceeded NDW criteria for lead (dissolved); however, the 2012 sample did not exceed criteria for lead (total).

- Select historic groundwater samples collected from monitoring well RFI-38-06 exceed GSI and NDW criteria for beryllium (total) and thallium (dissolved and total) and GSI was exceeded for silver. However, the 2012 sample did not exceed criteria for beryllium (total), thallium (total), or silver (total).

2012-2013 Soil Sampling

In October 2012 the initial sampling event was completed. Soil samples were collected from six locations (RFI-38-07 through RFI-38-12) within the Northern Parcel to evaluate the subsurface for possible impacts from historic Site use. The sampling locations were placed in AOI 38-1 (RFI-38-07 through RFI-38-09); at the locations of the former USTs (RFI-38-10 and RFI-10-11); and at the former storage area (RFI-38-12). The soil samples were planned to be collected from 0 to 2 ft bgs and 5 to 7 ft bgs at each boring location; however, due to shallow subsurface refusal, only borings RFI-38-07 and RFI-38-10 were completed to a depth of 7 ft bgs. At the remaining boring locations a 0 to 2 ft bgs sample was collected and a second deeper sample was collected where possible. Soil samples were submitted for laboratory analysis of VOCs, SVOCs, PCBs, and metals.

In addition, soil samples were collected from the three background sampling locations (RFI-BG-08-2, RFI-BG-09-2, and RFI-BG-10-2) along the western property boundary of the Site. These borings were co-located with historic background sampling locations RFI-BG-08, RFI-BG-09, and RFI-BG-10. Soil samples were collected from 0 to 2 feet bgs at these locations and submitted to the laboratory for analysis of VOCs, SVOCs, PCBs, and metals.

In March – June 2013 additional sampling was completed to delineate two exceedances of Non-residential Particulate Soil Inhalation Criteria (NPSIC) identified during the initial sampling event. Nineteen soil borings (RFI-38-12-1, RFI-38-12-2, RFI-38-12-4 through RFI-38-12-17, and RFI-38-12-19 through RFI-38-12-21) were completed to delineate the exceedance identified at RFI-38-12. At RFI-BG-10 five soil borings (RFI-BG-10-3 through RFI-BG-10-7) were completed to delineate NPSIC exceedance. In addition, a boring was co-located with the RFI-BG-10-2 soil boring to vertically delineate the exceedance.

Soil samples were collected from 0 to 2 ft bgs, 3 to 5 ft bgs, and/or 5 to 7 ft bgs and were submitted for laboratory analysis of manganese. One exception is RFI-38-12-19 which only had one sample collected from 0 to 2 ft bgs due to refusal at 2.2 ft bgs. The soil samples collected from the 3 to 5, and 5 to 7 ft bgs interval were placed on hold pending exceedances of NPSIC criteria detected in the shallower intervals. Please note that soil borings were not completed at proposed locations RFI-38-12-3 and RFI-38-12-18.

In September 2013 during a site walk, surface staining was observed at a former hydraulic lift area at the northern portion of the Building 38 slab. Eight soil borings (SB-38-01 through SB-38-08) were completed to investigate two former hydraulic lifts in the area. One soil sample was collected from soil borings SB-38-01 through SB-38-06, with the sample intervals being biased towards staining and/or elevated PID readings. No samples were collected from boring SB-38-07 and SB-38-08 as there was no evidence of impact at these boring locations. The soil samples were submitted to the laboratory for analysis of VOCs, SVOCs, PCBs, total petroleum hydrocarbons (TPH) - Diesel Range Organics (DRO), and TPH- Oil Range Organics (ORO).

Soil Sampling Results

The soil analytical data were compared to the Nonresidential MDEQ Part 201 Generic Cleanup Criteria and Screening Levels including Non-residential Drinking Water Protection criteria (NDWP); Groundwater-Surface Water Interface Protection criteria (GSIP); Nonresidential Direct Contact (NDC); Groundwater Contact Protection criteria (GCCP); Soil Saturation Concentration screening levels (CSAT); Non-residential Particulate Soil Inhalation Criteria (NPSIC); Non-residential Soil Volatilization to Indoor Air Inhalation criteria (NSVIA); Non-residential Infinite Source Volatile Soil inhalation Criteria (NVSICI); Non-residential Finite Volatile Soil inhalation Criteria for 5 meter Source Thickness (NVSIC5); Nonresidential Finite Source Volatile Soil inhalation Criteria for 2 meter Source Thickness (NVSIC2); and State Default Background Levels (SDBL). Soil data were not compared to residential criteria as the parcel is zoned for non-residential use.

Table 2A presents the soil data collected during the sampling events completed from the October 2012 through June 2013. **Table 2B** presents the soil data collected during the former hydraulic lift investigation event. Analytes which were detected at concentrations that exceed state default background levels and one of the criteria listed above are further discussed below.

October 2012 Sampling Results

- The soil samples collected from borings RFI-38-07, RFI-38-08, RFI-38-09, RFI-38-10, and RFI-38-11 do not exceed criteria.
- The soil sample collected from RFI-38-12 (0.7 to 1.4 ft bgs) exceeds GSIP criteria for cobalt, copper, manganese, silver, and zinc. In addition the sample exceeds NDWP for cobalt and manganese and NPSIC criteria for manganese.

- The soil sample collected from RFI-BG-08-2 (0.6 to 2 ft bgs) exceeds GSIP and NDWP criteria for cobalt and manganese.
- The soil sample collected from RFI-BG-09-2 (0.5 to 1 ft bgs) exceeds GSIP and NDWP criteria for cobalt and manganese.
- The soil sample collected from RFI-BG-10-2 (0.6 to 1 ft bgs) exceeds GSIP and NDWP criteria for cobalt.

March – June 2013 Delineation Sampling Results

- RFI-BG-10/RFI-BG-10-2 Area
  - The delineation samples collected from RFI-BG-10-3 (0 to 2 ft bgs), RFI-BG-10-4 (3 to 5 ft bgs), and RFI-BG-10-6 (0 to 2 ft bgs) do not exceed criteria.
  - The delineation soil samples collected from RFI-BG-10-2 exceeded NPSIC, GSIP and NDWP criteria for manganese in the shallow sample (0 to 2 ft bgs) and GSIP and NDWP criteria in the deeps sample (3 to 5 ft bgs).
  - The delineation soil samples collected from RFI-BG-10-3 (3 to 5 ft bgs), RFI-BG-10-4 (0 to 2 ft bgs), RFI-BG-10-5 (0 to 2 and 3 to 5 ft bgs), and RFI-BG-10-6 (3 to 5 ft bgs) exceeded GSIP and NDWP criteria for manganese.

The manganese exceedances of NPSIC criteria are shown on **Figure 8.**

- RFI-38-12 Area
  - The delineation samples collected from RFI-38-12-1 (3 to 5 ft bgs), RFI-38-12-2 (3 to 5 ft bgs), RFI-38-12-5 (3 to 5 ft bgs), RFI-38-12-6 (0 to 2 and 3 to 5 ft bgs), RFI-38-12-7 (0 to 2 and 3 to 5 ft bgs), RFI-38-12-8 (0 to 2 and 3 to 5 ft bgs), RFI-38-12-9 (3 to 5 ft bgs), RFI-38-12-11 (1 to 2 ft bgs), RFI-38-12-13 (0 to 2 ft bgs) RFI-38-12-19 (0 to 2 ft bgs), and RFI-38-12-21 (0 to 2 ft bgs) do not exceed criteria.
  - The delineation soil samples collected from RFI-38-12-1 (0 to 2 ft bgs), RFI-38-12-2 (0 to 2 ft bgs), RFI-38-12-4 (0 to 2 ft bgs), RFI-38-12-5 (0 to 2 ft bgs), and RFI-38-12-12 (0 to 2) exceeded NPSIC, GSIP and NDWP criteria for manganese.
  - The delineation samples collected from RFI-38-12-4 (3 to 5 ft bgs), RFI-38-12-9 (0 to 2 ft bgs), RFI-38-12-10 (0 to 2 ft bgs), RFI-38-12-14 (0 to 2 ft bgs), RFI-38-12-15 (0 to 2 ft bgs), RFI-38-12-16 (1 to 2 ft bgs), RFI-38-12-17 (1 to 2 ft bgs), and RFI-38-12-20 (0 to 2 ft bgs) exceeded GSIP and NDWP criteria for manganese.

The vertical and horizontal extents of the manganese exceedances of NPSIC criteria at RFI-38-12 have been delineated as shown on **Figure 4**.

September 2013 Former Hydraulic Lift Investigation Sampling Results

- The investigation samples collected from SB-38-01 (1 to 2 ft bgs), SB-38-02 (2 to 3 ft bgs), SB-38-03 (6 to 7 ft bgs), and SB-38-05 (3 to 3.5 ft bgs) do not exceed criteria.
- The investigation soil samples collected from SB-38-04 (2 to 3 ft bgs) and SB-38-06 (7 to 9 ft bgs) exceeded GSIP criteria for fluoranthene and phenanthrene.
- The investigation soil sample collected from SB-38-06 (7 to 9 ft bgs) also exceeded GSIP criteria for 2-methylnaphthalene, acenaphthalene, fluorene, and naphthalene.
- The investigation soil samples collected from SB-38-06 (7 to 9 ft bgs) also exceeded NDC criteria for benzo(a)anthracene, benzo(a)pyrene, benzo(a)fluoranthene, and dibenzo(a,h)anthracene.
- The investigation soil samples collected from SB-38-06 (7 to 9 ft bgs) also exceeded GCCP criteria for anthracene.
- It should be noted that while the soil sample collected from SB-38-06 (7 to 9 ft bgs) also exceeded the Vapor Intrusion Soil Screening Level criteria in the MDEQ Guidance Document for the Vapor Intrusion Pathway (May 2013), the criteria in the Guidance document are not applicable for the following reasons:
    - The guidance document in its entirety is located at: http://www.michigan.gov/documents/deq/deq-rrd-VIGuidanceDoc-May2013_422550_7.pdf The specific section that address the applicability of the document is located in Appendix C – Checklists for Evaluating Compliance with Part 201, specifically C.1 Checklist for Determining if Generic Volatilization to Indoor Air Inhalation Criteria Apply. Per the soil discussion at the bottom of page 1 and the following criteria, the MDEQ Part 201 Non-residential soil volatilization to indoor air inhalation criteria applies to the Site data.
        - Sample location SB-38-06 is located beneath the former Building 38 slab, which is constructed of poured concrete.
        - There are no active sumps present in this area.
    - As the soil data does not exceed part 201 criteria Non-residential Soil Volatilization to Indoor Air Inhalation Criteria, Vapor intrusion is not a concern.
    - Concrete cracking becoming a pathway is a valid concern. Appendix B – Supplemental Guidance Information, specifically B.1 - Alternate Approach for Demonstrating

Compliance with the Volatilization to Indoor Air Pathway (Big Building Model); Section 1.0 on page 4 addresses the floor thickness assumed under Part 201 and how cracks are accounted in the selection criteria.

In addition the soil sample collected from SB-38-06 (7 to 9 ft bgs) does not exceed NSVIA criteria.

The soil boring locations are as shown on **Figure 6**.

Historic Sampling Results

Table 2C presents the historic soil data collected from the Northern Parcel. In addition the 2012-2013 data are also included on Table 2C for reference. Analytes which were detected in the historic samples at concentrations that exceed criteria are further discussed below.

- The soil samples collected from RFI-36-02, RFI-38-02, RFI-38-03, RFI-38-04, and RFI-38-06 do not exceed criteria.
- The shallow soil sample collected from RFI-38-01 (0.5 to 2.5 ft bgs) exceeds GSIP and NDWP criteria for arsenic and manganese. The samples collected from RFI-38-01 at depth (8.5 to 10.5 ft bgs and 18.5 to 20.5 ft bgs) did not exceed criteria.
- The shallow soil sample collected from RFI-38-05 (0.6 to 2.6 ft bgs) exceeds GSIP and NDWP criteria for manganese. The samples collected from RFI-38-05 at depth (8.6 to 10.6 ft bgs and 14.6 to 16.6 ft bgs) did not exceed criteria.
- The soil sample collected from RFI-BG-08 (0 to 2 ft bgs) exceeds GSIP and NDWP criteria for arsenic and manganese.
- The soil sample collected from RFI-BG-09 (0 to 2 ft bgs) exceeds GSIP and NDWP criteria for arsenic.
- The soil sample collected from RFI-BG-10 (0 to 2 ft bgs) exceeds GSIP, NDWP and NPSIC criteria for manganese and GSIP criteria for zinc.

Conclusions and Remedy Recommendations

Conclusion

The historic groundwater data detected various metals at concentrations exceeding NDW and/or GSI criteria at several wells. The results of the 2012 groundwater sampling identified two monitoring wells (RFI-36-02 and RFI-38-06) which exceeded NDW criteria for arsenic, manganese, and/or

trichloroethene and RFI 36-02 also exceeded GSI criteria for arsenic. The GSI pathway is only applicable through the Site storm sewers which discharge to the Flint River. The samples collected from the Site storm sewer in this area as part of a monthly sampling event have not exceeded GSI criteria for arsenic since the sampling program began in Fall of 2010.

The historic soil data detected select metals at concentrations exceeding GSIP, NDWP and /or NPSIC criteria at five soil boring locations, including the three background sampling locations. The results of the 2012 -2013 soil sampling indicate the following:

- Exceedances of GSIP, NDWP, and/or NPSIC criteria for select metals in four shallow soil samples, including the three background sampling locations (RFI-38-12, RFI-BG-08-2, RFI-BG-09-2, and RFI-BG-10/RFI-BG-10-2). The manganese exceedances of NPSIC criteria detected at RFI-38-12 and RFI-BG-10/RFI-BG-10-2 were delineated during subsequent sampling events
- The former hydraulic lift investigation results detected select VOCs and SVOCs above GSIP, GCCP, and/or NDC criteria at two soil boring locations (SB-38-04 and SB-38-06).

GSIP and GCCP criteria are not applicable pathways. As discussed above, GSI criteria have not been exceed in samples collected from the Site storm sewer which is the only GSI pathway in this part of the Site. The sample that exceeds GCCP criteria was collected from 7 to 9 feet bgs, which is 8 to 10 feet above the groundwater table. In addition, none of the groundwater samples (historic or recent) have detected an analyte above GCC criteria.

The samples that exceed NDC and/or NPSIC criteria were collected from soils located beneath concrete or asphalt; therefore, the direct contact and soil particulate inhalation pathways are not currently applicable pathways.

In addition, the historic soil and groundwater data collected from the Northern Parcel were evaluated in the Human Health Risk Assessments (HHRAs) completed as part of RCRA Facility Investigation (RFI) Phase II activities. The HHRAs determined that the Northern Parcel did not pose a potential threat to human health and the environment and that no further action was required. The HHRA, dated 2006, was completed with the data available at the time. The additional northern parcel sampling conducted since then was not considered in that HHRA. The remedy recommendations in this Memo will address these potential human health exposures brought to light from recent sampling.

Remedy Recommendations

1) The remedy recommended to address the drinking water pathway is a groundwater use restriction. The restriction planned for the Northern Parcel will prohibit the use of groundwater for any purpose beyond sampling and other related investigatory testing. An example of the language to be included in the *Prohibited Activities to Eliminate Unacceptable Exposure to hazardous Substances* section of the Restrictive Covenant is as follows:

The Owner shall prohibit activities on the Property that may result in exposures to hazardous substances at the Property. These prohibited activities include: The construction and use of wells or other devices on the Property, as described in Exhibit 1, to extract groundwater for consumption, irrigation, or any other purpose, except as provided below:

(a) Wells and other devices constructed as part of a corrective action activity for the purpose of evaluating groundwater quality or to remediate subsurface contamination associated with a release of hazardous substances into the environment are permitted provided the construction of the wells or devices complies with all applicable local, state, and federal laws and regulations and does not cause or result in a new release, exacerbation of existing contamination, or any other violation of local, state, or federal laws or regulations.

(b) Short-term dewatering for construction purposes is permitted provided the dewatering, including management and disposal of the groundwater, is conducted in accordance with all applicable local, state, and federal laws and regulations and does not cause or result in a new release, exacerbation of existing contamination, or any other violation of local, state, and federal environmental laws and regulations.

2) The potential remedy recommendation options to address the NDC exceedance at SB-38-06 are as follows:

Option 1 – Deed Restriction

Implementation of a deed restriction for a substantial portion of the Northern Parcel that will require the evaluation of Site data prior to conducting excavation activities and implementation of a health and safety plan to be protective of workers. An example of the language to be included in the Prohibited Activities to Eliminate Unacceptable Exposure *to hazardous Substances* section of the Restrictive Covenant is as follows:

The Owner shall consider that any excavation or other intrusive activity within the area of the Property identified in the area SB-38-06 and illustrated and described in Exhibit 2, may require such work to be performed in compliance with 40 CFR 1910.120, and shall prohibit any excavation or other intrusive activity within these areas that could result in the exposure to workers not wearing required personal protective equipment (PPE).

Option 2 – Reduce deed restricted area

This option would include completing additional soil borings to refine the extent of the NDC impact vertically and horizontally. This option would minimize the area requiring restriction or excavation.

Option 3 – Limited removal of Impact Soils

This option would include that RACER be responsible for incremental costs associated from the transportation and disposal of impacted soils generated during structure foundation installation. All other costs, including but not limited to excavation and removal of soils, would be borne by the potential purchaser

3) The remedies recommended to address the NPSIC exceedance at RFI-BG-10 is an excavation restriction (as described above) and a soil exposure barrier restriction. The soil barrier restriction planned for the Northern Parcel will require that in the event that existing cover (concrete or pavement) are removed at the Property, as defined in Exhibit 1, the barrier must either be replaced or soil above non-residential cleanup standards must be excavated and disposed of. An example of the language to be included in the *Prohibited Activities to Eliminate Unacceptable Exposure to hazardous Substances* section of the Restrictive Covenant is as follows:

In addition, the Owner shall maintain the surface cover of all areas of the Property identified as Area RFI-BG-10 as illustrated and described in Exhibit 2, such that it remains consistent with current cover materials. Any excavation or other intrusive activity that could affect the integrity of the concrete, asphalt or soil is prohibited, except during short-term construction or repair projects or for purposes of further treating or remediating the subject contamination. Any excavation or other intrusive activity, including removing, altering, or disturbing the concrete, asphalt, or soil that could affect the integrity of the barrier, must be replaced with a cover that provides at least an equivalent degree of protection as the original barrier within 45 days of completion of the work. Repair and/or replacement of the barrier must be completed unless additional sampling is conducted that demonstrates that a barrier in the area is no longer necessary in accordance with the applicable provisions and requirements of Part 201 of the NREPA and 40 C.F.R §761.61(a)(8)(B)(ii).

4) The remedy recommended to address the manganese exceedances of NPSIC in the RFI-38-12 area is a targeted removal of the impacted soils. This portion of the site is slated for redevelopment and due to the location and shallow nature of the impacts (0 to 2 ft bgs); the likelihood of the soils being exposed during redevelopment activities; and the pathway of concern

(inhalation), it is prudent to remove and dispose of the impacted soils. The anticipated excavation limits are present in **Figure 4** and soils in this area will be removed to 3 feet below ground surface. Sidewall and floor confirmation samples will be collected and analyzed for manganese to confirm the remaining material is below the cleanup criteria.

5) In addition the Site use will be restricted to Non-residential.

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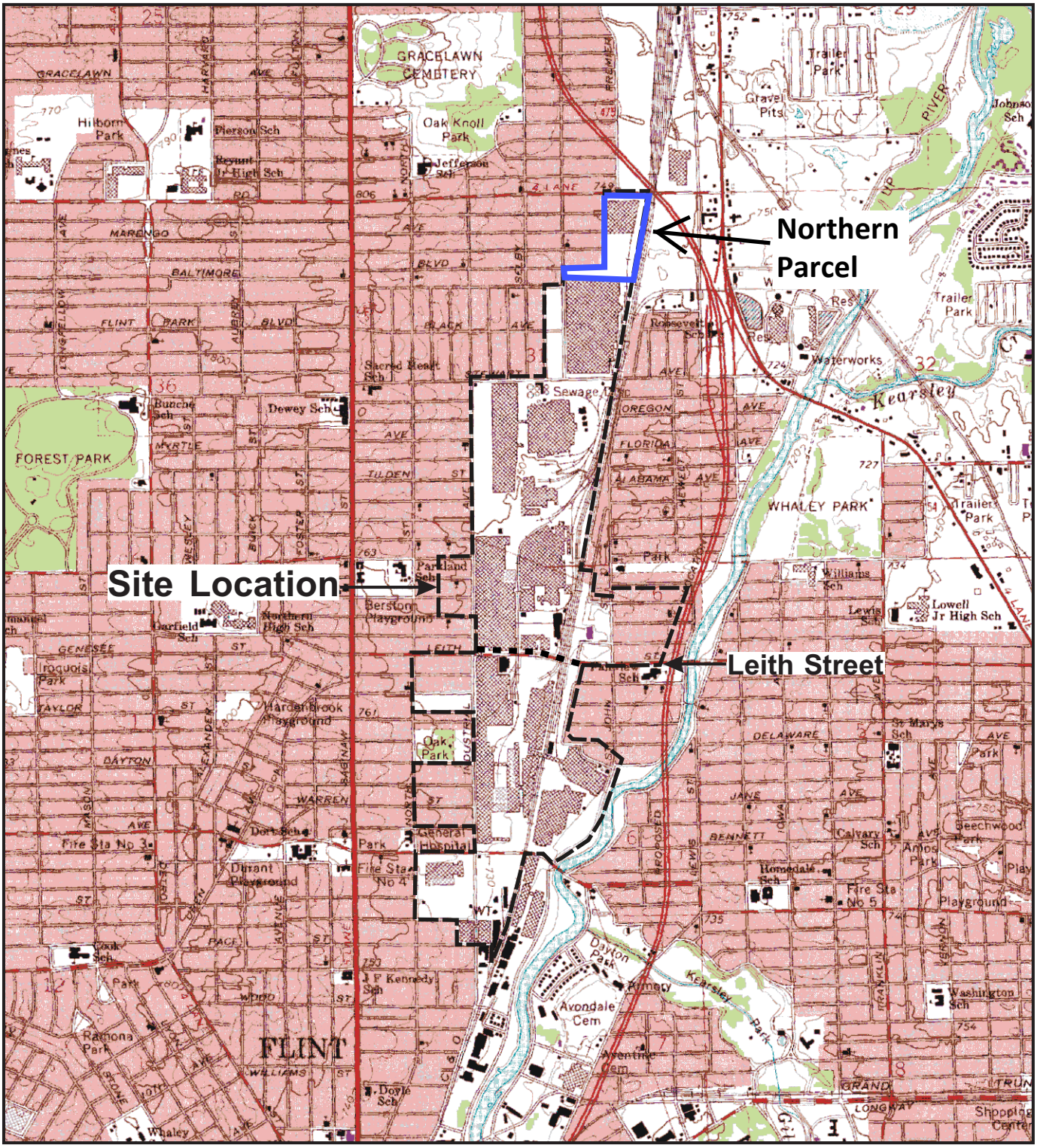
Figures



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

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

RACER TRUST
BUICK CITY - FLINT, MICHIGAN

SITE LOCATION

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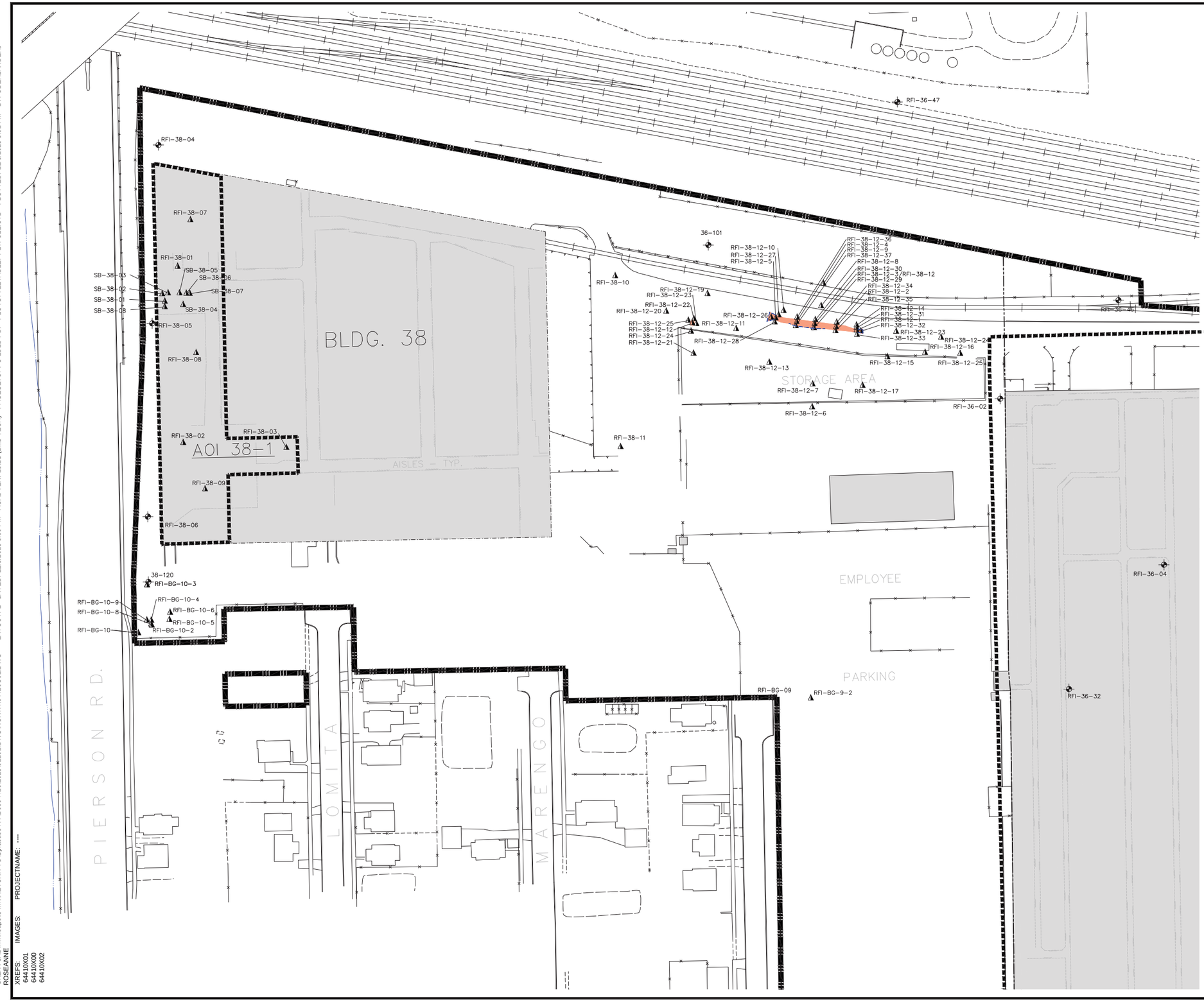
FIGURE
1

05/07/2012 SYRACUSE, NY-ENV/CAD-DJHOWES
B0064410/4012/00104/CDR/64410N02.CDR



LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RACER PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- DEMOLISHED BUILDING
- NORTHERN PARCEL
- PROPOSED REMOVAL AREA
- EXTENT OF IMPACT NOT YET DELINEATED

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED SEPTEMBER 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 60' 120'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

NORTHERN PARCEL SITE PLAN

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FIGURE
2

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MN\RETURN-TO\Syracuse-NY\B0064410\2013\01101\DWG\NORTH\64410G02.DWG LAYOUT: 2 SAVED: 12/3/2013 3:01 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: C:\LD2B.PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/3/2013 3:01 PM BY: OBERLANDER, ROSEANNE
XREFS:
64410X01
64410X00
64410X02
IMAGES:
PROJECTNAME: ----

36-101						
Depth()	(No Depth)	(No Depth)	(No Depth)	(No Depth)	(No Depth)	(No Depth)
Date	9/28/2001	6/13/2002	11/2/2006	4/23/2007	6/27/2007	10/18/2012
Inorganic						
Manganese (mg/L)	**0.44 J**	**0.33 J**	NA	NA	NA	NA
Inorganic-Dissolved						
Manganese (Dissolved) (mg/L)	**0.45 J**	NA	NA	NA	NA	NA

RFI-36-02							
Depth()	(No Depth)	(No Depth)	(No Depth)	(No Depth)	(No Depth)	(No Depth)	(No Depth)
Date	10/4/2001	6/13/2002	3/25/2003	10/13/2004	11/2/2006	11/14/2007	11/7/2012
Inorganic							
Arsenic (mg/L)	**0.085 J**	**0.091**	**0.019**	**0.013**	NA	NA	**0.022 [0.023]**
Manganese (mg/L)	**1.2 J**	**1.4 J**	**0.64**	NA	NA	NA	NA
Nickel (mg/L)	**0.13**	0.092	0.066	0.020	NA	NA	NA
Inorganic-Dissolved							
Arsenic (Dissolved) (mg/L)	**0.057**	NA	NA	NA	NA	NA	NA
Manganese (Dissolved) (mg/L)	**0.78**	NA	NA	NA	NA	NA	NA

36-101

RFI-38-10

RFI-38-12-9

RFI-38-12-19

RFI-38-12-8

RFI-38-12-20

RFI-38-12-10

RFI-38-12-27

RFI-38-12-5

RFI-38-12-36

RFI-38-12-30

RFI-38-12-26

RFI-38-12-28

RFI-38-12-4

RFI-38-12-3/RFI-38-12

RFI-38-12-34

RFI-38-12-25

RFI-38-12-22

RFI-38-12-37

RFI-38-12-14

RFI-38-12-12

RFI-38-12-23

RFI-38-12-29

RFI-38-12-8

RFI-38-12-2

RFI-38-12-31

RFI-38-12-1

RFI-38-12-11

RFI-38-12-35

RFI-38-12-32

RFI-38-12-24

RFI-38-12-33

RFI-38-12-23

RFI-38-12-24

RFI-38-12-21

RFI-38-12-16

RFI-38-12-25

RFI-38-12-15

RFI-38-12-13

STORAGE AREA

RFI-38-12-7

RFI-38-12-17

RFI-36-02

RFI-38-12-6

RFI-38-11

LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RACER PROPERTY BOUNDARY
- PROPERTY OWNED BY OTHERS
- APPROXIMATE AOI BOUNDARY
- DEMOLISHED BUILDING
- NORTHERN PARCEL
- PROPOSED REMOVAL AREA
- EXTENT OF IMPACT NOT YET DELINEATED
- EXCEEDS NONRESIDENTIAL DRINKING WATER PROTECTION CRITERIA
- EXCEEDS GROUNDWATER SURFACE WATER INTERFACE CRITERIA
- EXCEEDS NONRESIDENTIAL PARTICULATE SOIL INHALATION CRITERIA
- EXCEEDS NONRESIDENTIAL DIRECT CONTACT CRITERIA

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED SEPTEMBER 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 20' 40'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

RFI-38-12 AREA GROUNDWATER

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FIGURE
3

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MN\RETURN-TO\Syracuse-NY\B0064410\2013\01101\DWG\NORTH\64410G03.dwg LAYOUT: 3 SAVED: 12/3/2013 3:02 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/3/2013 3:02 PM BY: OBERLANDER, ROSEANNE
XREFS: 64410X01 64410X00 64410X02 IMAGES: PROJECTNAME: ----

RFI-38-12-26		
Depth(ft)	(0.5 – 2)	
Date	10/30/2013	
Inorganic		
Manganese (mg/kg)	**2070**	
Manganese (mg/kg)	**2070**	

RFI-38-12-5		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**4440**	**210**
Manganese (mg/kg)	**4440**	210

RFI-38-12-27	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1230**

RFI-38-12-10	
Depth(ft)	(0 – 2)
Date	5/9/2013
Inorganic	
Manganese (mg/kg)	**1090**

RFI-38-12-4		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**3110**	**1180**
Manganese (mg/kg)	**3110**	1180

RFI-38-12-9		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**461**	**34.9**

RFI-38-12-8		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**141**	**94.2**

RFI-38-12-30	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**881**

RFI-38-12-19	
Depth(ft)	(0 – 2)
Date	6/5/2013
Inorganic	
Manganese (mg/kg)	**431**

RFI-38-12			
Depth(ft)	(0 – 2)	(0.7 – 1.4)	(3 – 5)
Date	3/21/2013	10/12/2012	3/21/2013
Inorganic			
Cobalt (mg/kg)	NA	**70.1**	NA
Copper (mg/kg)	NA	**127**	NA
Manganese (mg/kg)	**491**	**6750**	**338**
Manganese (mg/kg)	491	**6750**	338
Silver (mg/kg)	NA	**1.08**	NA
Zinc (mg/kg)	NA	**518**	NA

RFI-38-12-20	
Depth(ft)	(0 – 2)
Date	5/28/2013
Inorganic	
Manganese (mg/kg)	**604**

RFI-38-12-36	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1120**

RFI-38-12-34	
Depth(ft)	(1 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**846**

RFI-38-12-22	
Depth(ft)	(1 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**594**

RFI-38-12-2		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**2200**	**115**
Manganese (mg/kg)	**2200**	115

RFI-38-12-23	
Depth(ft)	(1.2 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**699**

RFI-38-12-14	
Depth(ft)	(0 – 2)
Date	5/9/2013
Inorganic	
Manganese (mg/kg)	**466**

RFI-38-12-25	
Depth(ft)	(0.8 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**688**

RFI-38-12-31	
Depth(ft)	(1 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**515**

RFI-38-12-12	
Depth(ft)	(0 – 2)
Date	5/9/2013
Inorganic	
Manganese (mg/kg)	**1980**
Manganese (mg/kg)	**1980**

RFI-38-12-24	
Depth(ft)	(1 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1140**

RFI-38-12-11	
Depth(ft)	(1 – 2)
Date	5/9/2013
Inorganic	
Manganese (mg/kg)	**210**

RFI-38-12-28	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1410**

RFI-38-12-37	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**2040**
Manganese (mg/kg)	**2040**

RFI-38-12-29	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1700**
Manganese (mg/kg)	**1700**

RFI-38-12-35	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**897**

RFI-38-12-1		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**1790**	**63.7**
Manganese (mg/kg)	**1790**	63.7

RFI-38-12-32	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**2450**
Manganese (mg/kg)	**2450**

RFI-38-12-21	
Depth(ft)	(0 – 2)
Date	6/5/2013
Inorganic	
Manganese (mg/kg)	**386**

RFI-38-12-33	
Depth(ft)	(0.5 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1150**

RFI-38-12-15	
Depth(ft)	(0 – 2)
Date	5/9/2013
Inorganic	
Manganese (mg/kg)	**355**

RFI-38-12-13	
Depth(ft)	(0 – 2)
Date	6/5/2013
Inorganic	
Manganese (mg/kg)	**170**

RFI-38-12-7		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/21/2013	3/21/2013
Inorganic		
Manganese (mg/kg)	**177**	**228**

RFI-38-12-17	
Depth(ft)	(1 – 2)
Date	5/9/2013
Inorganic	
Manganese (mg/kg)	**464**

STORAGE AREA

LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RACER PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- DEMOLISHED BUILDING
- NORTHERN PARCEL
- PROPOSED REMOVAL AREA
- EXTENT OF IMPACT NOT YET DELINEATED
- EXCEEDS NONRESIDENTIAL DRINKING WATER PROTECTION CRITERIA
- EXCEEDS GROUNDWATER SURFACE WATER INTERFACE CRITERIA
- EXCEEDS NONRESIDENTIAL PARTICULATE SOIL INHALATION CRITERIA
- EXCEEDS NONRESIDENTIAL DIRECT CONTACT CRITERIA

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED SEPTEMBER 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 10' 20'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

RFI-38-12 AREA SOIL DATA

ARCADIS

FIGURE 4

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MN\RETURN-TO\Syracuse-NY\B0064410\2013\01101\DWG\NORTH\64410G04.dwg LAYOUT: 4 SAVED: 12/3/2013 11:54 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/3/2013 11:54 AM BY: OBERLANDER, ROSEANNE
XREFS: IMAGES: PROJECTNAME: ---
64410X01
64410X00
64410X02

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MN\RETURN-TO\Syracuse-NY\B0064410\2013\10\1\01\DWG\NORTH\64410G05.dwg LAYOUT: 5 SAVED: 12/3/2013 12:56 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: C:\LD2B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/3/2013 12:56 PM BY: OBERLANDER, ROSEANNE
XREFS: IMAGES: PROJECTNAME: ----
64410X01
64410X00
64410X02

SB-38-03

SB-38-02

SB-38-05

SB-38-06

SB-38-01

SB-38-04

RFI-38-05

RFI-38-08

RFI-38-05	
Depth()	(No Depth)
Date	9/28/2001
Inorganic	
Manganese (mg/L)	**0.55 J**
Inorganic-Dissolved	
Manganese (Dissolved) (mg/L)	**0.52 J**

LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
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- APPROXIMATE AOI BOUNDARY
- DEMOLISHED BUILDING
- NORTHERN PARCEL
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NOTES:

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0 5' 10'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

SB-38-06 AREA GROUNDWATER

ARCADIS

FIGURE
5

CITY: SYRACUSE, NY DIVGROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MNRETURN-TO\Syracuse-NYB0064410\2013\01101\DWG\NORTH\64410G06.dwg LAYOUT: 6 SAVED: 11/27/2013 3:53 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: C:\LD2B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/27/2013 3:53 PM BY: OBERLANDER, ROSEANNE
XREFS:
64410X01
64410X00
64410X02
IMAGES:
PROJECTNAME: ----

SB-38-06	
Depth(ft)	(7 – 9)
Date	9/5/2013
VOC	
Naphthalene (ug/kg)	**1950**
SVOC	
2-Methylnaphthalene (ug/kg)	**4500 Y**
Acenaphthene (ug/kg)	**16900 Y**
Anthracene (ug/kg)	**41900 Y**
Benzo(a)anthracene (ug/kg)	**122200 Y**
Benzo(a)pyrene (ug/kg)	**125800 Y**
Benzo(b)fluoranthene (ug/kg)	**218100 Yp**
Dibenzo(a,h)anthracene (ug/kg)	**26300 Y**
Fluoranthene (ug/kg)	**255600 Y**
Fluorene (ug/kg)	**20900 Y**
Naphthalene (ug/kg)	**4600 Y**
Phenanthrene (ug/kg)	**177900 Y**

SB-38-02	
Depth(ft)	(2 – 3)
Date	9/5/2013
All Analytes	No Exceedances

SB-38-03	
Depth(ft)	(6 – 7)
Date	9/5/2013
All Analytes	No Exceedances

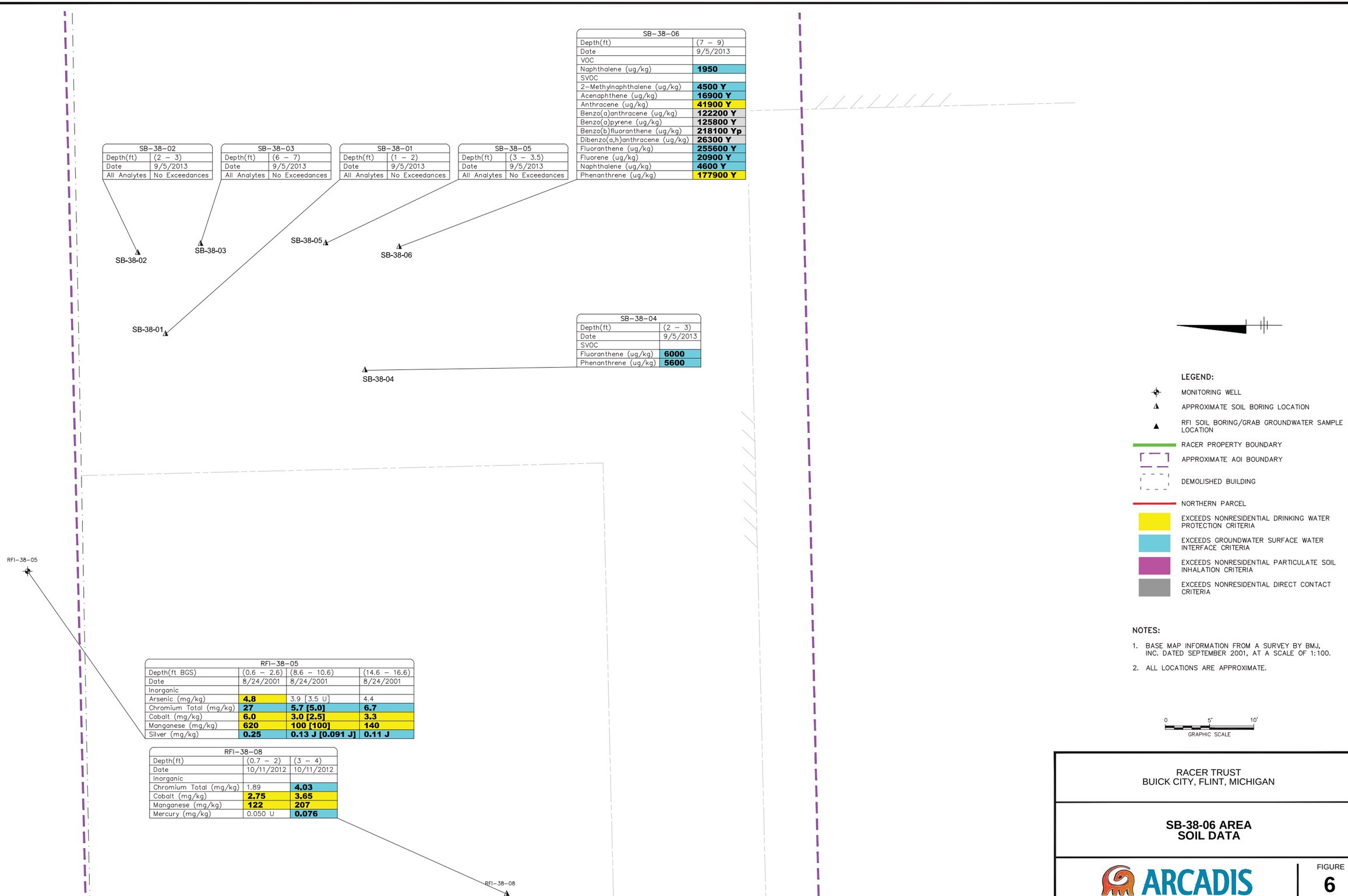
SB-38-01	
Depth(ft)	(1 – 2)
Date	9/5/2013
All Analytes	No Exceedances

SB-38-05	
Depth(ft)	(3 – 3.5)
Date	9/5/2013
All Analytes	No Exceedances

SB-38-04	
Depth(ft)	(2 – 3)
Date	9/5/2013
SVOC	
Fluoranthene (ug/kg)	**6000**
Phenanthrene (ug/kg)	**5600**

RFI-38-05			
Depth(ft BGS)	(0.6 – 2.6)	(8.6 – 10.6)	(14.6 – 16.6)
Date	8/24/2001	8/24/2001	8/24/2001
Inorganic			
Arsenic (mg/kg)	**4.8**	3.9 [3.5 U]	4.4
Chromium Total (mg/kg)	**27**	**5.7 [5.0]**	**6.7**
Cobalt (mg/kg)	**6.0**	**3.0 [2.5]**	**3.3**
Manganese (mg/kg)	**620**	**100 [100]**	**140**
Silver (mg/kg)	**0.25**	**0.13 J [0.091 J]**	**0.11 J**

RFI-38-08		
Depth(ft)	(0.7 – 2)	(3 – 4)
Date	10/11/2012	10/11/2012
Inorganic		
Chromium Total (mg/kg)	1.89	**4.03**
Cobalt (mg/kg)	**2.75**	**3.65**
Manganese (mg/kg)	**122**	**207**
Mercury (mg/kg)	0.050 U	**0.076**



LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RACER PROPERTY BOUNDARY
- APPROXIMATE AOI BOUNDARY
- DEMOLISHED BUILDING
- NORTHERN PARCEL
- EXCEEDS NONRESIDENTIAL DRINKING WATER PROTECTION CRITERIA
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NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED SEPTEMBER 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.

0 5' 10'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

SB-38-06 AREA SOIL DATA

ARCADIS

FIGURE 6

38–120		
Depth()	(No Depth)	(No Depth)
Date	9/27/2001	10/10/2012
Inorganic		
Manganese (mg/L)	**0.57 J**	**0.671**
Inorganic–Dissolved		
Manganese (Dissolved) (mg/L)	**0.41**	NA

38–120

RFI–BG–10–3

RFI–BG–10–6

RFI–BG–10–9

RFI–BG–10–4

RFI–BG–10–5

RFI–BG–10–8

RFI–BG–10–2

RFI–BG–10

LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
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0 5' 10'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

RFI-BG-10 AREA GROUNDWATER

ARCADIS

FIGURE
7

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MN\RETURN-TO\Syracuse-NY\B0064410\2013\01101\DWG\NORTH\64410G07.dwg LAYOUT: 7 SAVED: 12/2/2013 9:46 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/2/2013 9:46 AM BY: OBERLANDER, ROSEANNE
XREFS:
64410X01
64410X00
64410X02
IMAGES:
PROJECTNAME: ----

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LYR: ON=*;OFF=*REF*
G:\ENVCAD\Minneapolis-MN\RETURN-TO\Syracuse-NY\B0064410\2013\01\1\DWG\NORTH\64410G08.dwg LAYOUT: 8 SAVED: 12/2/2013 9:48 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: C-LD2B-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/2/2013 9:48 AM BY: OBERLANDER, ROSEANNE
XREFS:
64410X01
64410X00
64410X02
IMAGES:
PROJECTNAME: ----

38–120

RFI–BG–10–3

RFI–BG–10–3		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/22/2013	3/22/2013
Inorganic		
Manganese (mg/kg)	**300**	**472**

RFI–BG–10–9

RFI–BG–10–9	
Depth(ft)	(0.3 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**1240**

RFI–BG–10–4

RFI–BG–10–4		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/22/2013	3/22/2013
Inorganic		
Manganese (mg/kg)	**708**	**128**

RFI–BG–10–6

RFI–BG–10–6		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/22/2013	3/22/2013
Inorganic		
Manganese (mg/kg)	**284**	**569**

RFI–BG–10–5

RFI–BG–10–5		
Depth(ft)	(0 – 2)	(3 – 5)
Date	3/22/2013	3/22/2013
Inorganic		
Manganese (mg/kg)	**447**	**646**

RFI–BG–10–8

RFI–BG–10–8	
Depth(ft)	(0.3 – 2)
Date	10/30/2013
Inorganic	
Manganese (mg/kg)	**631**

RFI–BG–10–2

RFI–BG–10–2			
Depth(ft)	(0 – 2)	(0.6 – 1)	(3 – 5)
Date	3/22/2013	10/11/2012	3/22/2013
Inorganic			
Cobalt (mg/kg)	NA	**11.5**	NA
Manganese (mg/kg)	**1470**	**366**	**527**

RFI–BG–10

RFI–BG–10	
Depth(ft BGS)	(0 – 2)
Date	8/29/2002
Inorganic	
Arsenic (mg/kg)	**5.5 J**
Cobalt (mg/kg)	**3.8 J**
Manganese (mg/kg)	**2100**
Manganese (mg/kg)	**2100**
Silver (mg/kg)	**0.26 J**
Zinc (mg/kg)	**720 J**

RFI–BG–10–6
RFI–BG–10–5
RFI–BG–10–4
RFI–BG–10–9
RFI–BG–10–8
RFI–BG–10–2
RFI–BG–10

LEGEND:

- MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RACER PROPERTY BOUNDARY
- NORTHERN PARCEL
- EXCEEDS NONRESIDENTIAL DRINKING WATER PROTECTION CRITERIA
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NOTES:

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2. ALL LOCATIONS ARE APPROXIMATE.

0 5' 10'
GRAPHIC SCALE

RACER TRUST
BUICK CITY, FLINT, MICHIGAN

RFI-BG-10 AREA SOIL DATA

ARCADIS

FIGURE
8

ARCADIS

Tables

Table 1A
Summary of 2012 Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 10/11/12	36-101 10/18/12	38-120 10/10/12	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-06 10/10/12
VOC																
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	30,000	- -	320	96,000	1,100,000	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,1,1-Trichloroethane	ug/L	- -	1,300,000	1,300,000	89	200	1,300,000	1,330,000	1	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,1,2,2-Tetrachloroethane	ug/L	- -	- -	4,700	78	35	77,000	2,970,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	170,000	170,000	32	170,000	170,000	170,000	NA	NA	NA	NA	30 U	NA	NA	NA
1,1,2-Trichloroethane	ug/L	- -	- -	21,000	330	5	110,000	4,420,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,1-Dichloroethane	ug/L	380,000	- -	2,400,000	740	2,500	2,300,000	5,060,000	3	NA	1 U	1 U	1	1 U	NA	1 U [1 U]
1,1-Dichloroethene	ug/L	97,000	140,000	11,000	130	7	1,300	2,250,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
1,2,3-Trichloropropane	ug/L	- -	- -	84,000	- -	120	18,000	1,900,000	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	5 U	NA	5 U	5 U	2 U	5 U	NA	5 U [5 U]
1,2,4-Trimethylbenzene	ug/L	56,000	- -	56,000	17	2,900	56,000	55,890	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	1 U	5 U	NA	5 U [5 U]
1,2-Dibromoethane	ug/L	- -	- -	25	5.7	0.05	15,000	4,200,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,2-Dichloroethane	ug/L	2,500,000	- -	19,000	360	5	59,000	8,520,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,2-Dichloropropane	ug/L	550,000	2,800,000	16,000	230	5	36,000	2,800,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,3,5-Trimethylbenzene	ug/L	- -	- -	61,000	45	2,900	61,000	61,150	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
2-Butanone	ug/L	- -	240,000,000	240,000,000	2,200	38,000	240,000,000	240,000,000	25 U	NA	25 U	25 U	20 U	25 U	NA	25 U [25 U]
2-Hexanone	ug/L	- -	- -	5,200,000	- -	2,900	8,700,000	16,000,000	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U [50 U]
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
4-Methyl-2-pentanone	ug/L	- -	20,000,000	13,000,000	- -	5,200	20,000,000	20,000,000	50 U	NA	50 U	50 U	10 U	50 U	NA	50 U [50 U]
Acetone	ug/L	15,000,000	1,000,000,000	31,000,000	1,700	2,100	1,000,000,000	1,000,000,000	50 U	NA	50 U	50 U	20 U	50 U	NA	50 U [50 U]
Acrylonitrile	ug/L	6,400,000	- -	14,000	2	11	190,000	75,000,000	2 U	NA	2 U	2 U	NA	2 U	NA	2 U [2 U]
Benzene	ug/L	68,000	67,000	11,000	200	5	35,000	1,750,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Bromobenzene	ug/L	- -	- -	12,000	- -	50	390,000	413,000	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Bromochloromethane	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Bromodichloromethane	ug/L	- -	- -	14,000	- -	80	37,000	6,740,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Bromoform	ug/L	- -	- -	140,000	- -	80	3,100,000	3,100,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Bromomethane	ug/L	- -	- -	70,000	35	29	9,000	14,500,000	5 U	NA	5 U	5 U	2 U	5 U	NA	5 U [5 U]
Carbon Disulfide	ug/L	13,000	- -	1,200,000	- -	2,300	550,000	1,190,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U [5 U]
Carbon Tetrachloride	ug/L	- -	96,000	4,600	45	5	2,400	793,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Chlorobenzene	ug/L	160,000	- -	86,000	25	100	470,000	472,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Chloroethane	ug/L	110,000	- -	440,000	1,100	1,700	5,700,000	5,740,000	5 U	NA	5 U	5 U	1 U	5 U	NA	5 U [5 U]
Chloroform	ug/L	- -	- -	150,000	350	80	180,000	7,920,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Chloromethane	ug/L	36,000	210,000	490,000	- -	1,100	45,000	6,340,000	5 U	NA	5 U	5 U	1 U	5 U	NA	5 U [5 U]
cis-1,2-Dichloroethene	ug/L	530,000	- -	200,000	620	70	210,000	3,500,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Cyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA
Dibromochloromethane	ug/L	- -	- -	18,000	- -	80	110,000	2,600,000	5 U	NA	5 U	5 U	1 U	5 U	NA	5 U [5 U]
Dibromomethane	ug/L	- -	- -	530,000	- -	230	- -	11,000,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Dichlorodifluoromethane	ug/L	- -	- -	300,000	- -	4,800	300,000	300,000	5 U	NA	5 U	5 U	1 U	5 U	NA	5 U [5 U]
Diethyl ether	ug/L	650,000	61,000,000	35,000,000	- -	10,000	61,000,000	61,000,000	10 U	NA	10 U	10 U	NA	10 U	NA	10 U [10 U]
Ethylbenzene	ug/L	43,000	170,000	170,000	18	700	170,000	169,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Iodomethane	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Isopropylbenzene	ug/L	29,000	- -	56,000	28	2,300	56,000	56,000	5 U	NA	5 U	5 U	1 U	5 U	NA	5 U [5 U]
m&p-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	2 U	NA	2 U	2 U	2 U	2 U	NA	2 U [2 U]
Methyl acetate	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	10 U	NA	NA	NA
Methyl tert-butyl ether	ug/L	- -	- -	610,000	7,100	690	47,000,000	46,800,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U [5 U]
Methylcyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	20 U	NA	NA	NA
Methylene Chloride	ug/L	- -	- -	220,000	1,500	5	1,400,000	17,000,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U [5 U]
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U [5 U]

Table 1A
Summary of 2012 Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 10/11/12	36-101 10/18/12	38-120 10/10/12	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-06 10/10/12
n-Butylbenzene	ug/L	- -	- -	5,900	- -	230	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
n-Propylbenzene	ug/L	- -	- -	15,000	- -	230	- -	- -	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
o-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
p-Isopropyltoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
sec-Butylbenzene	ug/L	- -	- -	4,400	- -	230	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Styrene	ug/L	140,000	310,000	9,700	80	100	310,000	310,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
tert-Butylbenzene	ug/L	- -	- -	8,900	- -	230	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Tetrachloroethene	ug/L	- -	200,000	12,000	60	5	170,000	200,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Tetrahydrofuran	ug/L	60,000	3,600,000	1,600,000	11,000	270	16,000,000	1,000,000,000	90 U	NA	90 U	90 U	NA	90 U	NA	90 U [90 U]
Toluene	ug/L	61,000	- -	530,000	270	1,000	530,000	526,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
trans-1,2-Dichloroethene	ug/L	230,000	- -	220,000	1,500	100	200,000	6,300,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Trichloroethene	ug/L	- -	1,100,000	22,000	200	5	97,000	1,100,000	1 U	NA	1 U	1 U	1 U	1 U	NA	**7 [8]**
Trichlorofluoromethane	ug/L	- -	1,100,000	1,100,000	- -	7,300	1,100,000	1,100,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
Vinyl Chloride	ug/L	33,000	- -	1,000	13	2	13,000	2,760,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U [1 U]
SVOC																
1,1'-Biphenyl	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,2-Diphenylhydrazine	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2,4,5-Trichlorophenol	ug/L	- -	- -	170,000	- -	2,100	- -	1,200,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2,4,6-Trichlorophenol	ug/L	- -	- -	10,000	5	470	- -	800,000	4 U	NA	4 U	4 U	NA	4 U	NA	4 U [4 U]
2,4-Dichlorophenol	ug/L	- -	- -	48,000	11	210	- -	4,500,000	10 U	NA	10 U	10 U	NA	10 U	NA	10 U [10 U]
2,4-Dimethylphenol	ug/L	- -	- -	520,000	380	1,000	- -	7,870,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2,4-Dinitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	25 U	NA	25 U	25 U	NA	25 U	NA	25 U [25 U]
2,4-Dinitrotoluene	ug/L	- -	- -	8,600	- -	32	- -	270,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2,6-Dinitrotoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2-Chloronaphthalene	ug/L	- -	- -	6,700	- -	5,200	- -	6,740	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2-Chlorophenol	ug/L	- -	- -	94,000	18	130	1,100,000	22,000,000	10 U	NA	10 U	10 U	NA	10 U	NA	10 U [10 U]
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
2-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	10 U	NA	10 U	10 U	NA	10 U	NA	10 U [10 U]
2-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	25 U	NA	25 U	25 U	NA	25 U	NA	25 U [25 U]
2-Nitrophenol	ug/L	- -	- -	79,000	- -	58	- -	2,500,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
3&4-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	20 U	20 U	NA	20 U	NA	20 U [20 U]
3,3'-Dichlorobenzidine	ug/L	- -	- -	180	0.3	4.3	- -	3,110	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
3-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	25 U	NA	25 U	25 U	NA	25 U	NA	25 U [25 U]
4,6-Dinitro-2-methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	20 U	20 U	NA	20 U	NA	20 U [20 U]
4-Bromophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
4-Chloro-3-Methylphenol	ug/L	- -	- -	79,000	7.4	420	- -	3,900,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
4-Chloroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	10 U	NA	10 U	10 U	NA	10 U	NA	10 U [10 U]
4-Chlorophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
4-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	25 U	NA	25 U	25 U	NA	25 U	NA	25 U [25 U]
4-Nitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	25 U	NA	25 U	25 U	NA	25 U	NA	25 U [25 U]
Acenaphthene	ug/L	- -	- -	4,200	38	3,800	4,200	4,240	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Acenaphthylene	ug/L	- -	- -	3,900	- -	150	3,900	3,930	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Acetophenone	ug/L	- -	- -	6,100,000	- -	4,400	6,100,000	6,100,000	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	- -	- -	43	- -	43	43	43.4	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Atrazine	ug/L	- -	- -	5,400	7.3	3	- -	70,000	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	- -	9.4	- -	8.5	- -	9.4	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Benzo(a)pyrene	ug/L	- -	- -	1	- -	5	- -	1.62	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]

Table 1A
Summary of 2012 Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 10/11/12	36-101 10/18/12	38-120 10/10/12	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-06 10/10/12
Benzo(b)fluoranthene	ug/L	- -	- -	1.5	- -	1.5	- -	1.5	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Benzo(g,h,i)perylene	ug/L	- -	- -	1	- -	1	- -	0.26	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Benzo(k)fluoranthene	ug/L	- -	- -	1	- -	1	- -	0.8	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
bis(2-Chloroethoxy)methane	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
bis(2-Chloroethyl)ether	ug/L	17,000,000	17,000,000	5,700	1	8.3	210,000	17,200,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
bis(2-Ethylhexyl)phthalate	ug/L	- -	340	320	25	6	- -	340	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Butylbenzylphthalate	ug/L	- -	- -	2,700	67	2,700	- -	2,690	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Caprolactam	ug/L	- -	1,000,000,000	390,000,000	- -	17,000	- -	5,250,000,000	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	- -	- -	7,400	10	350	- -	7,480	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	- -	- -	1.6	- -	1.6	- -	1.6	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Dibenzo(a,h)anthracene	ug/L	- -	- -	2	- -	2	- -	2.49	2 U	NA	2 U	2 U	NA	2 U	NA	2 U [2 U]
Dibenzofuran	ug/L	- -	- -	- -	4	- -	10,000	10,000	4 U	NA	4 U	4 U	NA	4 U	NA	4 U [4 U]
Diethylphthalate	ug/L	- -	- -	1,100,000	110	16,000	- -	1,080,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Dimethylphthalate	ug/L	- -	- -	4,200,000	- -	210,000	- -	4,190,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Di-n-Butylphthalate	ug/L	- -	- -	11,000	9.7	2,500	- -	11,200	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Di-n-Octylphthalate	ug/L	- -	- -	400	- -	380	- -	3,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Fluoranthene	ug/L	- -	- -	210	1.6	210	210	206	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Fluorene	ug/L	- -	- -	2,000	12	2,000	2,000	1,980	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Hexachlorobenzene	ug/L	- -	- -	4.6	0.2	1	3,000	6,200	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Hexachlorobutadiene	ug/L	- -	- -	400	0.053	42	3,200	3,230	10 U	NA	10 U	10 U	NA	10 U	NA	10 U [10 U]
Hexachlorocyclopentadiene	ug/L	- -	- -	1,600	- -	50	420	1,800	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Indeno(1,2,3-cd)pyrene	ug/L	- -	- -	2	- -	2	- -	0.022	2 U	NA	2 U	2 U	NA	2 U	NA	2 U [2 U]
Isophorone	ug/L	- -	12,000,000	990,000	1,300	3,100	- -	12,000,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Methylphenols, Total	ug/L	- -	- -	810,000	30	1,000	- -	28,000,000	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Nitrobenzene	ug/L	- -	- -	11,000	180	9.6	550,000	2,090,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
N-Nitroso-di-n-propylamine	ug/L	- -	- -	360	- -	5	- -	9,890,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
N-Nitrosodiphenylamine	ug/L	- -	- -	35,000	- -	1,100	- -	35,100	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Pentachlorophenol	ug/L	- -	- -	200	2.8	1	- -	1,850,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Phenanthrene	ug/L	- -	- -	1,000	2	150	1,000	1,000	2 U	NA	2 U	2 U	NA	2 U	NA	2 U [2 U]
Phenol	ug/L	- -	- -	29,000,000	450	13,000	- -	82,800,000	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Pyrene	ug/L	- -	- -	140	- -	140	140	135	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
PCB																
Aroclor-1016	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Aroclor-1221	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Aroclor-1232	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Aroclor-1242	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Aroclor-1248	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Aroclor-1254	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Aroclor-1260	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	0.1 U	NA	0.1 U	NA	0.1 U [0.1 U]
Total PCBs	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																
Antimony	ug/L	- -	- -	68,000	130	6	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	- -	- -	4,300	10	10	- -	- -	2 U	NA	2 U	9	**22 [23]**	2 U	NA	2 U [2 U]
Barium	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	46	NA	93	352	NA	66	NA	70 [71]
Beryllium	ug/L	- -	- -	290,000	32.3	4	- -	- -	1 U	NA	1 U	1 U	NA	1 U	NA	1 U [1 U]
Cadmium	ug/L	- -	- -	190,000	4.8	5	- -	- -	0.5	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U [0.5 U]
Chromium Total	ug/L	- -	- -	460,000	11	100	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Cobalt	ug/L	- -	- -	2,400,000	100	100	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Copper	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	ug/L	- -	- -	57,000	5.2	200	- -	- -	5 U	5 U	5 U	5 U	NA	5 U	5 U [5 U]	5 U [5 U]
Lead	ug/L	- -	- -	- -	30.9	4	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	500	NA	671	1,070	NA	19	NA	866 [886]
Mercury	ug/L	- -	- -	56	0.0013	2	56	56	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]

Table 1A
Summary of 2012 Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 10/11/12	36-101 10/18/12	38-120 10/10/12	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 10/10/12	RFI-38-04 10/18/12	RFI-38-06 10/10/12
Nickel	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	12	NA	7	52	NA	5 U	NA	11 [9]
Selenium	ug/L	- -	- -	970,000	5	50	- -	- -	5 U	NA	5 U	5 U	NA	5 U	NA	5 U [5 U]
Silver	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]
Thallium	ug/L	- -	- -	13,000	3.7	2	- -	- -	2 U	NA	2 U	2 U	NA	2 U	NA	2 U [2 U]
Vanadium	ug/L	- -	- -	970,000	12	62	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	27	NA	5 U	5 U	NA	5 U	NA	6 [11]

Note:
During the 2012 sampling event two of the groundwater samples were accidentally mis-named in the field. The sample collected from monitoring well 36-101 was mis-named 38-101 and sample RFI-36-02 was mis-named RFI-38-02. The well names have been corrected on this table.

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/11/12	36-101 10/18/12	36-121 09/27/01	38-120 09/27/01	38-120 10/10/12	RFI-36-02 10/04/01	RFI-36-02 06/13/02
VOC																				
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	30,000	- -	320	96,000	1,100,000	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,1,1-Trichloroethane	ug/L	- -	1,300,000	1,300,000	89	200	1,300,000	1,330,000	1 U	NA	0.2 J	0.3 J	0.2 J	1	NA	1 U	1 U	1 U	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	- -	- -	4,700	78	35	77,000	2,970,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	170,000	170,000	32	170,000	170,000	170,000	1 U	NA	30 U	30 U	30 U	NA	NA	1 U	1 U	NA	1 U	NA
1,1,2-Trichloroethane	ug/L	- -	- -	21,000	330	5	110,000	4,420,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,1-Dichloroethane	ug/L	380,000	- -	2,400,000	740	2,500	2,300,000	5,060,000	5.9	NA	11	18	20	3	NA	1 U	1 U	1 U	0.76 J	NA
1,1-Dichloroethene	ug/L	97,000	140,000	11,000	130	7	1,300	2,250,000	1 U	NA	0.1 J	0.2 J	0.3 J	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
1,2,3-Trichloropropane	ug/L	- -	- -	84,000	- -	120	18,000	1,900,000	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	5 U	NA	2 U	2 U	2 U	5 U	NA	5 U	5 U	5 U	5 U	NA
1,2,4-Trimethylbenzene	ug/L	56,000	- -	56,000	17	2,900	56,000	55,890	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	1 U	5 U	NA	1 U	1 U	5 U	1 U	NA
1,2-Dibromoethane	ug/L	- -	- -	25	5.7	0.05	15,000	4,200,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichloroethane	ug/L	2,500,000	- -	19,000	360	5	59,000	8,520,000	1 U	NA	0.5 J	1	1	1 U	NA	1 U	1 U	1 U	1 U	NA
1,2-Dichloropropane	ug/L	550,000	2,800,000	16,000	230	5	36,000	2,800,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,3,5-Trimethylbenzene	ug/L	- -	- -	61,000	45	2,900	61,000	61,150	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
2-Butanone	ug/L	- -	240,000,000	240,000,000	2,200	38,000	240,000,000	240,000,000	25 U	NA	20 U	20 U	20 U	25 U	NA	25 U	25 U	25 U	25 U	NA
2-Hexanone	ug/L	- -	- -	5,200,000	- -	2,900	8,700,000	16,000,000	50 U	NA	50 U	50 U	50 U	50 U	NA	50 U	50 U	50 U	50 U	NA
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
4-Methyl-2-pentanone	ug/L	- -	20,000,000	13,000,000	- -	5,200	20,000,000	20,000,000	50 U	NA	10 U	10 U	10 U	50 U	NA	50 U	50 U	50 U	50 U	NA
Acetone	ug/L	15,000,000	1,000,000,000	31,000,000	1,700	2,100	1,000,000,000	1,000,000,000	25 U	NA	20 U	20 UJ	20 U	50 U	NA	0.8 J	0.9 J	50 U	25 U	NA
Acrylonitrile	ug/L	6,400,000	- -	14,000	2	11	190,000	75,000,000	NA	NA	NA	NA	NA	2 U	NA	NA	NA	2 U	NA	NA
Benzene	ug/L	68,000	67,000	11,000	200	5	35,000	1,750,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Bromobenzene	ug/L	- -	- -	12,000	- -	50	390,000	413,000	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Bromochloromethane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Bromodichloromethane	ug/L	- -	- -	14,000	- -	80	37,000	6,740,000	1 U	NA	1	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Bromoform	ug/L	- -	- -	140,000	- -	80	3,100,000	3,100,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Bromomethane	ug/L	- -	- -	70,000	35	29	9,000	14,500,000	1 U	NA	2 U	2 U	2 U	5 U	NA	1 U	1 U	5 U	1 U	NA
Carbon Disulfide	ug/L	13,000	- -	1,200,000	- -	2,300	550,000	1,190,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	NA
Carbon Tetrachloride	ug/L	- -	96,000	4,600	45	5	2,400	793,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Chlorobenzene	ug/L	160,000	- -	86,000	25	100	470,000	472,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Chloroethane	ug/L	110,000	- -	440,000	1,100	1,700	5,700,000	5,740,000	1 U	NA	1 U	1 U	1 U	5 U	NA	1 U	1 U	5 U	1 U	NA
Chloroform	ug/L	- -	- -	150,000	350	80	180,000	7,920,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Chloromethane	ug/L	36,000	210,000	490,000	- -	1,100	45,000	6,340,000	1 U	NA	1 U	1 U	1 U	5 U	NA	1 U	1 U	5 U	1 U	NA
cis-1,2-Dichloroethene	ug/L	530,000	- -	200,000	620	70	210,000	3,500,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Cyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	1 U	1 UJ	1 U	NA	NA	5 U	5 U	NA	5 U	NA
Dibromochloromethane	ug/L	- -	- -	18,000	- -	80	110,000	2,600,000	1 U	NA	1 U	1 U	1 U	5 U	NA	1 U	1 U	5 U	1 U	NA
Dibromomethane	ug/L	- -	- -	530,000	- -	230	- -	11,000,000	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Dichlorodifluoromethane	ug/L	- -	- -	300,000	- -	4,800	300,000	300,000	1 U	NA	1 U	1 U	1 UJ	5 U	NA	1 U	1 U	5 U	1 U	NA
Diethyl ether	ug/L	650,000	61,000,000	35,000,000	- -	10,000	61,000,000	61,000,000	NA	NA	NA	NA	NA	10 U	NA	NA	NA	10 U	NA	NA
Ethylbenzene	ug/L	43,000	170,000	170,000	18	700	170,000	169,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
Iodomethane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Isopropylbenzene	ug/L	29,000	- -	56,000	28	2,300	56,000	56,000	5 U	NA	1 U	1 U	1 U	5 U	NA	5 U	5 U	5 U	5 U	NA
m&p-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	2 U	NA	1 U	1 U	1 U	2 U	NA	2 U	2 U	2 U	2 U	NA
Methyl acetate	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	NA	10 U	10 U	10 U	NA	NA	5 U	5 U	NA	5 U	NA
Methyl tert-butyl ether	ug/L	- -	- -	610,000	7,100	690	47,000,000	46,800,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	NA
Methylcyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	20 U	20 U	20 U	NA	NA	1 U	1 U	NA	1 U	NA
Methylene Chloride	ug/L	- -	- -	220,000	1,500	5	1,400,000	17,000,000	5 U	NA	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U	5 U	NA
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/11/12	36-101 10/18/12	36-121 09/27/01	38-120 09/27/01	38-120 10/10/12	RFI-36-02 10/04/01	RFI-36-02 06/13/02
n-Butylbenzene	ug/L	- -	- -	5,900	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
n-Propylbenzene	ug/L	- -	- -	15,000	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
o-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
p-Isopropyltoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
sec-Butylbenzene	ug/L	- -	- -	4,400	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Styrene	ug/L	140,000	310,000	9,700	80	100	310,000	310,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
tert-Butylbenzene	ug/L	- -	- -	8,900	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Tetrachloroethene	ug/L	- -	200,000	12,000	60	5	170,000	200,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 UJ	NA
Tetrahydrofuran	ug/L	60,000	3,600,000	1,600,000	11,000	270	16,000,000	1,000,000,000	NA	NA	NA	NA	NA	90 U	NA	NA	NA	90 U	NA	NA
Toluene	ug/L	61,000	- -	530,000	270	1,000	530,000	526,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
trans-1,2-Dichloroethene	ug/L	230,000	- -	220,000	1,500	100	200,000	6,300,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
Trichloroethene	ug/L	- -	1,100,000	22,000	200	5	97,000	1,100,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Trichlorofluoromethane	ug/L	- -	1,100,000	1,100,000	- -	7,300	1,100,000	1,100,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
Vinyl Chloride	ug/L	33,000	- -	1,000	13	2	13,000	2,760,000	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA
SVOC																				
1,1'-Biphenyl	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	NA	NA	5.3 U	5.3 U	NA	5 U	NA
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,2-Diphenylhydrazine	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	5 U	NA	NA	NA	5 U	NA	NA
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	NA	NA	NA	NA	NA	1 U	NA	NA	NA	1 U	NA	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2,4,5-Trichlorophenol	ug/L	- -	- -	170,000	- -	2,100	- -	1,200,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2,4,6-Trichlorophenol	ug/L	- -	- -	10,000	5	470	- -	800,000	4.1 U	NA	NA	NA	NA	4 U	NA	4.2 U	4.2 U	4 U	4 U	NA
2,4-Dichlorophenol	ug/L	- -	- -	48,000	11	210	- -	4,500,000	10 U	NA	NA	NA	NA	10 U	NA	11 U	11 U	10 U	10 U	NA
2,4-Dimethylphenol	ug/L	- -	- -	520,000	380	1,000	- -	7,870,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2,4-Dinitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	25 U	NA	21 U	21 U	25 U	20 U	NA
2,4-Dinitrotoluene	ug/L	- -	- -	8,600	- -	32	- -	270,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2,6-Dinitrotoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2-Chloronaphthalene	ug/L	- -	- -	6,700	- -	5,200	- -	6,740	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2-Chlorophenol	ug/L	- -	- -	94,000	18	130	1,100,000	22,000,000	5.1 U	NA	NA	NA	NA	10 U	NA	5.3 U	5.3 U	10 U	5 U	NA
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
2-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	10 U	NA	5.3 U	5.3 U	10 U	5 U	NA
2-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	25 U	NA	21 U	21 U	25 U	20 U	NA
2-Nitrophenol	ug/L	- -	- -	79,000	- -	58	- -	2,500,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
3&4-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	10 UJ	NA	NA	NA	NA	20 U	NA	11 UJ	11 UJ	20 U	10 UJ	NA
3,3'-Dichlorobenzidine	ug/L	- -	- -	180	0.3	4.3	- -	3,110	20 U	NA	NA	NA	NA	5 U	NA	21 U	21 U	5 U	20 U	NA
3-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	25 U	NA	21 U	21 U	25 U	20 U	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	20 U	NA	21 U	21 U	20 U	20 U	NA
4-Bromophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
4-Chloro-3-Methylphenol	ug/L	- -	- -	79,000	7.4	420	- -	3,900,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
4-Chloroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	10 U	NA	21 U	21 U	10 U	20 U	NA
4-Chlorophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
4-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	25 U	NA	21 U	21 U	25 U	20 U	NA
4-Nitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	20 U	NA	NA	NA	NA	25 U	NA	21 U	21 U	25 U	20 U	NA
Acenaphthene	ug/L	- -	- -	4,200	38	3,800	4,200	4,240	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Acenaphthylene	ug/L	- -	- -	3,900	- -	150	3,900	3,930	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Acetophenone	ug/L	- -	- -	6,100,000	- -	4,400	6,100,000	6,100,000	5.1 U	NA	NA	NA	NA	NA	NA	5.3 U	5.3 U	NA	5 U	NA
Anthracene	ug/L	- -	- -	43	- -	43	43	43.4	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Atrazine	ug/L	- -	- -	5,400	7.3	3	- -	70,000	5.1 UJ	NA	NA	NA	NA	NA	NA	5.3 U	5.3 U	NA	5 U	NA
Benzaldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	NA	NA	5.3 U	5.3 U	NA	5 U	NA
Benzo(a)anthracene	ug/L	- -	- -	9.4	- -	8.5	- -	9.4	1 U	NA	NA	NA	NA	1 U	NA	1.1 U	1.1 U	1 U	1 U	NA
Benzo(a)pyrene	ug/L	- -	- -	1	- -	5	- -	1.62	2 U	NA	NA	NA	NA	1 U	NA	2.1 U	2.1 U	1 U	2 U	NA
Benzo(b)fluoranthene	ug/L	- -	- -	1.5	- -	1.5	- -	1.5	2 U	NA	NA	NA	NA	1 U	NA	2.1 U	2.1 U	1 U	2 U	NA

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/11/12	36-101 10/18/12	36-121 09/27/01	38-120 09/27/01	38-120 10/10/12	RFI-36-02 10/04/01	RFI-36-02 06/13/02
Benzo(g,h,i)perylene	ug/L	- -	- -	1	- -	1	- -	0.26	5.1 U	NA	NA	NA	NA	1 U	NA	5.3 U	5.3 U	1 U	5 U	NA
Benzo(k)fluoranthene	ug/L	- -	- -	1	- -	1	- -	0.8	5.1 U	NA	NA	NA	NA	1 U	NA	5.3 U	5.3 U	1 U	5 U	NA
bis(2-Chloroethoxy)methane	ug/L	- -	- -	- -	- -	- -	- -	- -	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
bis(2-Chloroethyl)ether	ug/L	17,000,000	17,000,000	5,700	1	8.3	210,000	17,200,000	1 U	NA	NA	NA	NA	5 U	NA	1.1 U	1.1 U	5 U	1 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	- -	340	320	25	6	- -	340	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Butylbenzylphthalate	ug/L	- -	- -	2,700	67	2,700	- -	2,690	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Caprolactam	ug/L	- -	1,000,000,000	390,000,000	- -	17,000	- -	5,250,000,000	10 U	NA	NA	NA	NA	NA	NA	11 U	11 U	NA	10 U	NA
Carbazole	ug/L	- -	- -	7,400	10	350	- -	7,480	10 U	NA	NA	NA	NA	NA	NA	11 U	11 U	NA	10 U	NA
Chrysene	ug/L	- -	- -	1.6	- -	1.6	- -	1.6	5.1 U	NA	NA	NA	NA	1 U	NA	5.3 U	5.3 U	1 U	5 U	NA
Dibenzo(a,h)anthracene	ug/L	- -	- -	2	- -	2	- -	2.49	2 U	NA	NA	NA	NA	2 U	NA	2.1 U	2.1 U	2 U	2 U	NA
Dibenzofuran	ug/L	- -	- -	- -	4	- -	10,000	10,000	4.1 U	NA	NA	NA	NA	4 U	NA	4.2 U	4.2 U	4 U	4 U	NA
Diethylphthalate	ug/L	- -	- -	1,100,000	110	16,000	- -	1,080,000	1.47 J	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Dimethylphthalate	ug/L	- -	- -	4,200,000	- -	210,000	- -	4,190,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Di-n-Butylphthalate	ug/L	- -	- -	11,000	9.7	2,500	- -	11,200	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Di-n-Octylphthalate	ug/L	- -	- -	400	- -	380	- -	3,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Fluoranthene	ug/L	- -	- -	210	1.6	210	210	206	2 U	NA	NA	NA	NA	1 U	NA	2.1 U	2.1 U	1 U	2 U	NA
Fluorene	ug/L	- -	- -	2,000	12	2,000	2,000	1,980	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Hexachlorobenzene	ug/L	- -	- -	4.6	0.2	1	3,000	6,200	1 U	NA	NA	NA	NA	5 U	NA	1.1 U	1.1 U	5 U	1 U	NA
Hexachlorobutadiene	ug/L	- -	- -	400	0.053	42	3,200	3,230	5.1 U	NA	NA	NA	NA	10 U	NA	5.3 U	5.3 U	10 U	5 U	NA
Hexachlorocyclopentadiene	ug/L	- -	- -	1,600	- -	50	420	1,800	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	- -	2	- -	2	- -	0.022	2 U	NA	NA	NA	NA	2 U	NA	2.1 U	2.1 U	2 U	2 U	NA
Isophorone	ug/L	- -	12,000,000	990,000	1,300	3,100	- -	12,000,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Methylphenols, Total	ug/L	- -	- -	810,000	30	1,000	- -	28,000,000	5.1 U	NA	NA	NA	NA	NA	NA	5.3 U	5.3 U	NA	5 U	NA
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Nitrobenzene	ug/L	- -	- -	11,000	180	9.6	550,000	2,090,000	2 U	NA	NA	NA	NA	5 U	NA	2.1 U	2.1 U	5 U	2 U	NA
N-Nitroso-di-n-propylamine	ug/L	- -	- -	360	- -	5	- -	9,890,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
N-Nitrosodiphenylamine	ug/L	- -	- -	35,000	- -	1,100	- -	35,100	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Pentachlorophenol	ug/L	- -	- -	200	2.8	1	- -	1,850,000	20 U	NA	NA	NA	NA	5 U	NA	21 U	21 U	5 U	20 U	NA
Phenanthrene	ug/L	- -	- -	1,000	2	150	1,000	1,000	5.1 U	NA	NA	NA	NA	2 U	NA	5.3 U	5.3 U	2 U	5 U	NA
Phenol	ug/L	- -	- -	29,000,000	450	13,000	- -	82,800,000	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
Pyrene	ug/L	- -	- -	140	- -	140	140	135	5.1 U	NA	NA	NA	NA	5 U	NA	5.3 U	5.3 U	5 U	5 U	NA
PCB																				
Aroclor-1016	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Aroclor-1221	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Aroclor-1232	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Aroclor-1242	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Aroclor-1248	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Aroclor-1254	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Aroclor-1260	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Total PCBs	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
PCB-Dissolved																				
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Total PCBs (Dissolved)	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	0.1 U	NA
Inorganic																				
Antimony	ug/L	- -	- -	68,000	130	6	- -	- -	1.2 U	1.2 U	NA	NA	NA	NA	NA	NA	1.4 J	NA	1.2 U	1.2 U
Arsenic	ug/L	- -	- -	4,300	10	10	- -	- -	1.4 J	1 U	2 U	NA	NA	2 U	NA	NA	1.4 J	2 U	**85 J**	**91**
Barium	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	140 J	120 J	NA	NA	NA	46	NA	NA	180 J	93	400 J	230 J
Beryllium	ug/L	- -	- -	290,000	32.3	4	- -	- -	0.37 J	0.4 UJ	NA	NA	NA	1 U	NA	NA	3.2 J	1 U	0.74 J	0.4 UJ
Cadmium	ug/L	- -	- -	190,000	4.8	5	- -	- -	0.11 J	0.072 J	NA	NA	NA	0.5	NA	NA	0.28 J	0.5 U	0.2 U	0.2 U

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	36-101 09/28/01	36-101 06/13/02	36-101 11/02/06	36-101 04/23/07	36-101 06/27/07	36-101 10/11/12	36-101 10/18/12	36-121 09/27/01	38-120 09/27/01	38-120 10/10/12	RFI-36-02 10/04/01	RFI-36-02 06/13/02
Chromium Total	ug/L	- -	- -	460,000	11	100	- -	- -	0.82 J	0.7	NA	NA	NA	5 U	NA	NA	1.7	5 U	1	0.5 J
Cobalt	ug/L	- -	- -	2,400,000	100	100	- -	- -	2.1	1.3	NA	NA	NA	5 U	NA	NA	4.3	5 U	14	5.3
Copper	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	2	4.8	NA	NA	NA	NA	NA	NA	2.8	NA	1.9	2.5
Cyanide (total)	ug/L	- -	- -	57,000	5.2	200	- -	- -	1.3 J	NA	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	NA
Lead	ug/L	- -	- -	- -	30.9	4	- -	- -	0.38 J	0.13 J	NA	NA	NA	NA	NA	NA	0.56	NA	0.51	0.42 J
Manganese	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	440 J	330 J	NA	NA	NA	500	NA	NA	570 J	671	1,200 J	1,400 J
Mercury	ug/L	- -	- -	56	0.0013	2	56	56	0.2 U	**0.126 J**	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	35	13	NA	NA	NA	12	NA	NA	25	7	**130**	92
Selenium	ug/L	- -	- -	970,000	5	50	- -	- -	1.4 U	1.4 U	NA	NA	NA	5 U	NA	NA	1.4 U	5 U	1.4 U	1.4 U
Silver	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	0.4 U	0.4 UJ	NA	NA	NA	0.2 U	NA	NA	**0.5 J**	0.2 U	0.4 U	0.4 UJ
Thallium	ug/L	- -	- -	13,000	3.7	2	- -	- -	0.25 J	0.056 J	NA	NA	NA	2 U	NA	NA	1.9 J	2 U	0.2 U	0.2 U
Vanadium	ug/L	- -	- -	970,000	12	62	- -	- -	0.8 U	0.8 U	NA	NA	NA	NA	NA	NA	0.8 U	NA	0.8 U	0.8 U
Zinc	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	30 J	13 J	NA	NA	NA	27	NA	NA	14 J	5 U	18 J	15 J
Inorganic-Dissolved																				
Antimony (Dissolved)	ug/L	- -	- -	68,000	130	6	- -	- -	1.2 U	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	1.2 U	NA
Arsenic (Dissolved)	ug/L	- -	- -	4,300	10	10	- -	- -	1.7	NA	2 U	NA	NA	NA	NA	1 U	1 U	NA	**57**	NA
Barium (Dissolved)	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	130	NA	NA	NA	NA	NA	NA	64	130	NA	R	NA
Beryllium (Dissolved)	ug/L	- -	- -	290,000	32.3	4	- -	- -	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	0.4 UJ	NA
Cadmium (Dissolved)	ug/L	- -	- -	190,000	4.8	5	- -	- -	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA
Chromium Total (Dissolved)	ug/L	- -	- -	460,000	11	100	- -	- -	0.6 U	NA	NA	NA	NA	NA	NA	0.72	0.6 U	NA	0.6 UJ	NA
Cobalt (Dissolved)	ug/L	- -	- -	2,400,000	100	100	- -	- -	1.8	NA	NA	NA	NA	NA	NA	2.4	3.1	NA	8.4	NA
Copper (Dissolved)	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	2.5	NA	NA	NA	NA	NA	NA	0.81	0.85	NA	10 J	NA
Cyanide (dissolved)	ug/L	- -	- -	57,000	5.2	200	- -	- -	5 U	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	5 U	NA
Lead (Dissolved)	ug/L	- -	- -	- -	30.9	4	- -	- -	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	0.4 U	NA
Manganese (Dissolved)	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	450 J	NA	NA	NA	NA	NA	NA	770	410	NA	780	NA
Mercury (Dissolved)	ug/L	- -	- -	56	0.0013	2	56	56	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA
Nickel (Dissolved)	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	30	NA	NA	NA	NA	NA	NA	13	24	NA	77	NA
Selenium (Dissolved)	ug/L	- -	- -	970,000	5	50	- -	- -	2.5 J	NA	NA	NA	NA	NA	NA	2.3 J	1.4 U	NA	1.4	NA
Silver (Dissolved)	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	0.4 U	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	0.4 UJ	NA
Thallium (Dissolved)	ug/L	- -	- -	13,000	3.7	2	- -	- -	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U	0.89	NA	0.2 U	NA
Vanadium (Dissolved)	ug/L	- -	- -	970,000	12	62	- -	- -	0.8 U	NA	NA	NA	NA	NA	NA	0.8 U	0.8 U	NA	0.8 U	NA
Zinc (Dissolved)	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	19 J	NA	NA	NA	NA	NA	NA	6 U	11	NA	19 J	NA

Note:
During the 2012 sampling event two of the groundwater samples were accidentally mis-named in the field. The sample collected from monitoring well 36-101 was mis-named 38-101 and sample RFI-36-02 was mis-named RFI-38-02. The well names have been corrected on this table.

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12
VOC																			
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	30,000	- -	320	96,000	1,100,000	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,1,1-Trichloroethane	ug/L	- -	1,300,000	1,300,000	89	200	1,300,000	1,330,000	NA	0.4 J	0.2 J [0.1 J]	0.4 J	1 U	1 U	1 U	NA	NA	1 U	NA
1,1,2,2-Tetrachloroethane	ug/L	- -	- -	4,700	78	35	77,000	2,970,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 UJ	NA	NA	1 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	170,000	170,000	32	170,000	170,000	170,000	NA	30 U	30 U [30 U]	30 U	NA	30 U	1 U	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	- -	- -	21,000	330	5	110,000	4,420,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,1-Dichloroethane	ug/L	380,000	- -	2,400,000	740	2,500	2,300,000	5,060,000	NA	4 J	1 [2]	1	1 U	1	1 U	NA	NA	1 U	NA
1,1-Dichloroethene	ug/L	97,000	140,000	11,000	130	7	1,300	2,250,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
1,2,3-Trichloropropane	ug/L	- -	- -	84,000	- -	120	18,000	1,900,000	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	NA	2 U	2 U [2 U]	2 U	5 U	2 U	5 U	NA	NA	5 U	NA
1,2,4-Trimethylbenzene	ug/L	56,000	- -	56,000	17	2,900	56,000	55,890	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	1 U	1 U [1 U]	1 U	5 U	1 U	1 U	NA	NA	5 U	NA
1,2-Dibromoethane	ug/L	- -	- -	25	5.7	0.05	15,000	4,200,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,2-Dichloroethane	ug/L	2,500,000	- -	19,000	360	5	59,000	8,520,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,2-Dichloropropane	ug/L	550,000	2,800,000	16,000	230	5	36,000	2,800,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,3,5-Trimethylbenzene	ug/L	- -	- -	61,000	45	2,900	61,000	61,150	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
2-Butanone	ug/L	- -	240,000,000	240,000,000	2,200	38,000	240,000,000	240,000,000	NA	30 U	20 U [20 U]	20 U	25 U	20 U	25 U	NA	NA	25 U	NA
2-Hexanone	ug/L	- -	- -	5,200,000	- -	2,900	8,700,000	16,000,000	NA	50 U	50 U [50 U]	50 U	50 U	50 U	50 U	NA	NA	50 U	NA
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
4-Methyl-2-pentanone	ug/L	- -	20,000,000	13,000,000	- -	5,200	20,000,000	20,000,000	NA	1 U	10 U [10 U]	10 U	50 U	10 U	50 U	NA	NA	50 U	NA
Acetone	ug/L	15,000,000	1,000,000,000	31,000,000	1,700	2,100	1,000,000,000	1,000,000,000	NA	30 U	20 U [20 U]	20 U	50 U	20 U	25 U	NA	NA	50 U	NA
Acrylonitrile	ug/L	6,400,000	- -	14,000	2	11	190,000	75,000,000	NA	NA	NA	NA	2 U	NA	NA	NA	NA	2 U	NA
Benzene	ug/L	68,000	67,000	11,000	200	5	35,000	1,750,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Bromobenzene	ug/L	- -	- -	12,000	- -	50	390,000	413,000	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Bromochloromethane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Bromodichloromethane	ug/L	- -	- -	14,000	- -	80	37,000	6,740,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Bromoform	ug/L	- -	- -	140,000	- -	80	3,100,000	3,100,000	NA	1 UJ	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Bromomethane	ug/L	- -	- -	70,000	35	29	9,000	14,500,000	NA	2 UJ	2 U [2 U]	2 U	5 U	2 U	1 U	NA	NA	5 U	NA
Carbon Disulfide	ug/L	13,000	- -	1,200,000	- -	2,300	550,000	1,190,000	NA	5 UJ	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	5 U	NA
Carbon Tetrachloride	ug/L	- -	96,000	4,600	45	5	2,400	793,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Chlorobenzene	ug/L	160,000	- -	86,000	25	100	470,000	472,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Chloroethane	ug/L	110,000	- -	440,000	1,100	1,700	5,700,000	5,740,000	NA	1 UJ	1 U [1 U]	1 U	5 U	1 U	1 U	NA	NA	5 U	NA
Chloroform	ug/L	- -	- -	150,000	350	80	180,000	7,920,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Chloromethane	ug/L	36,000	210,000	490,000	- -	1,100	45,000	6,340,000	NA	1 U	1 U [1 U]	1 U	5 U	1 U	1 U	NA	NA	5 U	NA
cis-1,2-Dichloroethene	ug/L	530,000	- -	200,000	620	70	210,000	3,500,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	1 U	1 UJ [1 UJ]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Cyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	1 U	1 U [1 U]	1 U	NA	1 U	5 U	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	- -	18,000	- -	80	110,000	2,600,000	NA	1 U	1 U [1 U]	1 U	5 U	1 U	1 U	NA	NA	5 U	NA
Dibromomethane	ug/L	- -	- -	530,000	- -	230	- -	11,000,000	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
Dichlorodifluoromethane	ug/L	- -	- -	300,000	- -	4,800	300,000	300,000	NA	1 U	1 U [1 U]	1 UJ	5 U	1 U	1 U	NA	NA	5 U	NA
Diethyl ether	ug/L	650,000	61,000,000	35,000,000	- -	10,000	61,000,000	61,000,000	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA
Ethylbenzene	ug/L	43,000	170,000	170,000	18	700	170,000	169,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
Iodomethane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Isopropylbenzene	ug/L	29,000	- -	56,000	28	2,300	56,000	56,000	NA	1 U	1 U [1 U]	1 U	5 U	1 U	5 U	NA	NA	5 U	NA
m&p-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	1 U	1 U [1 U]	1 U	2 U	2 U	2 U	NA	NA	2 U	NA
Methyl acetate	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	10 U	10 U [10 U]	10 U	NA	10 U	5 U	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	- -	- -	610,000	7,100	690	47,000,000	46,800,000	NA	5 U	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	5 U	NA
Methylcyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	20 U	20 U [20 U]	20 U	NA	20 U	1 U	NA	NA	NA	NA
Methylene Chloride	ug/L	- -	- -	220,000	1,500	5	1,400,000	17,000,000	NA	0.4 J	5 U [5 U]	5 U	5 U	5 U	5 U	NA	NA	5 U	NA
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	5 U	NA

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12
n-Butylbenzene	ug/L	- -	- -	5,900	- -	230	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
n-Propylbenzene	ug/L	- -	- -	15,000	- -	230	- -	- -	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	1 U	NA
o-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
p-Isopropyltoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
sec-Butylbenzene	ug/L	- -	- -	4,400	- -	230	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Styrene	ug/L	140,000	310,000	9,700	80	100	310,000	310,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
tert-Butylbenzene	ug/L	- -	- -	8,900	- -	230	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Tetrachloroethene	ug/L	- -	200,000	12,000	60	5	170,000	200,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Tetrahydrofuran	ug/L	60,000	3,600,000	1,600,000	11,000	270	16,000,000	1,000,000,000	NA	NA	NA	NA	90 U	NA	NA	NA	NA	90 U	NA
Toluene	ug/L	61,000	- -	530,000	270	1,000	530,000	526,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
trans-1,2-Dichloroethene	ug/L	230,000	- -	220,000	1,500	100	200,000	6,300,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
Trichloroethene	ug/L	- -	1,100,000	22,000	200	5	97,000	1,100,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Trichlorofluoromethane	ug/L	- -	1,100,000	1,100,000	- -	7,300	1,100,000	1,100,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
Vinyl Chloride	ug/L	33,000	- -	1,000	13	2	13,000	2,760,000	NA	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	NA	NA	1 U	NA
SVOC																			
1,1'-Biphenyl	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,2-Diphenylhydrazine	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	NA	NA	NA	5 U	NA
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	NA	NA	NA	NA	1 U	NA	NA	NA	NA	1 U	NA
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2,4,5-Trichlorophenol	ug/L	- -	- -	170,000	- -	2,100	- -	1,200,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2,4,6-Trichlorophenol	ug/L	- -	- -	10,000	5	470	- -	800,000	NA	NA	NA	NA	4 U	NA	4.1 U	NA	NA	4 U	NA
2,4-Dichlorophenol	ug/L	- -	- -	48,000	11	210	- -	4,500,000	NA	NA	NA	NA	10 U	NA	10 U	NA	NA	10 U	NA
2,4-Dimethylphenol	ug/L	- -	- -	520,000	380	1,000	- -	7,870,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2,4-Dinitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	25 U	NA
2,4-Dinitrotoluene	ug/L	- -	- -	8,600	- -	32	- -	270,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2,6-Dinitrotoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2-Chloronaphthalene	ug/L	- -	- -	6,700	- -	5,200	- -	6,740	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2-Chlorophenol	ug/L	- -	- -	94,000	18	130	1,100,000	22,000,000	NA	NA	NA	NA	10 U	NA	5.1 U	NA	NA	10 U	NA
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
2-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	10 U	NA	5.1 U	NA	NA	10 U	NA
2-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	25 U	NA
2-Nitrophenol	ug/L	- -	- -	79,000	- -	58	- -	2,500,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
3&4-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	20 U	NA	10 UJ	NA	NA	20 U	NA
3,3'-Dichlorobenzidine	ug/L	- -	- -	180	0.3	4.3	- -	3,110	NA	NA	NA	NA	5 U	NA	21 U	NA	NA	5 U	NA
3-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	25 U	NA
4,6-Dinitro-2-methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	20 U	NA	21 U	NA	NA	20 U	NA
4-Bromophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
4-Chloro-3-Methylphenol	ug/L	- -	- -	79,000	7.4	420	- -	3,900,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
4-Chloroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	10 U	NA	21 U	NA	NA	10 U	NA
4-Chlorophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
4-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	25 U	NA
4-Nitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	25 U	NA	21 U	NA	NA	25 U	NA
Acenaphthene	ug/L	- -	- -	4,200	38	3,800	4,200	4,240	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Acenaphthylene	ug/L	- -	- -	3,900	- -	150	3,900	3,930	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Acetophenone	ug/L	- -	- -	6,100,000	- -	4,400	6,100,000	6,100,000	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA
Anthracene	ug/L	- -	- -	43	- -	43	43	43.4	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Atrazine	ug/L	- -	- -	5,400	7.3	3	- -	70,000	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA
Benzaldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	5.1 UJ	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	- -	9.4	- -	8.5	- -	9.4	NA	NA	NA	NA	1 U	NA	1 U	NA	NA	1 U	NA
Benzo(a)pyrene	ug/L	- -	- -	1	- -	5	- -	1.62	NA	NA	NA	NA	1 U	NA	2.1 U	NA	NA	1 U	NA
Benzo(b)fluoranthene	ug/L	- -	- -	1.5	- -	1.5	- -	1.5	NA	NA	NA	NA	1 U	NA	2.1 U	NA	NA	1 U	NA

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12
Benzo(g,h,i)perylene	ug/L	- -	- -	1	- -	1	- -	0.26	NA	NA	NA	NA	1 U	NA	5.1 U	NA	NA	1 U	NA
Benzo(k)fluoranthene	ug/L	- -	- -	1	- -	1	- -	0.8	NA	NA	NA	NA	1 U	NA	5.1 U	NA	NA	1 U	NA
bis(2-Chloroethoxy)methane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
bis(2-Chloroethyl)ether	ug/L	17,000,000	17,000,000	5,700	1	8.3	210,000	17,200,000	NA	NA	NA	NA	5 U	NA	1 U	NA	NA	5 U	NA
bis(2-Ethylhexyl)phthalate	ug/L	- -	340	320	25	6	- -	340	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Butylbenzylphthalate	ug/L	- -	- -	2,700	67	2,700	- -	2,690	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Caprolactam	ug/L	- -	1,000,000,000	390,000,000	- -	17,000	- -	5,250,000,000	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Carbazole	ug/L	- -	- -	7,400	10	350	- -	7,480	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA
Chrysene	ug/L	- -	- -	1.6	- -	1.6	- -	1.6	NA	NA	NA	NA	1 U	NA	5.1 U	NA	NA	1 U	NA
Dibenzo(a,h)anthracene	ug/L	- -	- -	2	- -	2	- -	2.49	NA	NA	NA	NA	2 U	NA	2.1 U	NA	NA	2 U	NA
Dibenzofuran	ug/L	- -	- -	- -	4	- -	10,000	10,000	NA	NA	NA	NA	4 U	NA	4.1 U	NA	NA	4 U	NA
Diethylphthalate	ug/L	- -	- -	1,100,000	110	16,000	- -	1,080,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Dimethylphthalate	ug/L	- -	- -	4,200,000	- -	210,000	- -	4,190,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Di-n-Butylphthalate	ug/L	- -	- -	11,000	9.7	2,500	- -	11,200	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Di-n-Octylphthalate	ug/L	- -	- -	400	- -	380	- -	3,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Fluoranthene	ug/L	- -	- -	210	1.6	210	210	206	NA	NA	NA	NA	1 U	NA	2.1 U	NA	NA	1 U	NA
Fluorene	ug/L	- -	- -	2,000	12	2,000	2,000	1,980	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Hexachlorobenzene	ug/L	- -	- -	4.6	0.2	1	3,000	6,200	NA	NA	NA	NA	5 U	NA	1 U	NA	NA	5 U	NA
Hexachlorobutadiene	ug/L	- -	- -	400	0.053	42	3,200	3,230	NA	NA	NA	NA	10 U	NA	5.1 U	NA	NA	10 U	NA
Hexachlorocyclopentadiene	ug/L	- -	- -	1,600	- -	50	420	1,800	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Indeno(1,2,3-cd)pyrene	ug/L	- -	- -	2	- -	2	- -	0.022	NA	NA	NA	NA	2 U	NA	2.1 U	NA	NA	2 U	NA
Isophorone	ug/L	- -	12,000,000	990,000	1,300	3,100	- -	12,000,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Methylphenols, Total	ug/L	- -	- -	810,000	30	1,000	- -	28,000,000	NA	NA	NA	NA	NA	NA	5.1 U	NA	NA	NA	NA
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Nitrobenzene	ug/L	- -	- -	11,000	180	9.6	550,000	2,090,000	NA	NA	NA	NA	5 U	NA	2.1 U	NA	NA	5 U	NA
N-Nitroso-di-n-propylamine	ug/L	- -	- -	360	- -	5	- -	9,890,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
N-Nitrosodiphenylamine	ug/L	- -	- -	35,000	- -	1,100	- -	35,100	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Pentachlorophenol	ug/L	- -	- -	200	2.8	1	- -	1,850,000	NA	NA	NA	NA	5 U	NA	21 U	NA	NA	5 U	NA
Phenanthrene	ug/L	- -	- -	1,000	2	150	1,000	1,000	NA	NA	NA	NA	2 U	NA	5.1 U	NA	NA	2 U	NA
Phenol	ug/L	- -	- -	29,000,000	450	13,000	- -	82,800,000	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
Pyrene	ug/L	- -	- -	140	- -	140	140	135	NA	NA	NA	NA	5 U	NA	5.1 U	NA	NA	5 U	NA
PCB																			
Aroclor-1016	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1221	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1232	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1242	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1248	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1254	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Aroclor-1260	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U	NA
Total PCBs	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
PCB-Dissolved																			
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	NA	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA
Inorganic																			
Antimony	ug/L	- -	- -	68,000	130	6	- -	- -	1.2 U	NA	NA	NA	NA	NA	1.2 U	1.2 U	1.2 U	NA	NA
Arsenic	ug/L	- -	- -	4,300	10	10	- -	- -	**19**	**13**	NA	NA	9	**22 [23]**	1.4 J	0.98 J	1 U	2 U	NA
Barium	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	170 J	NA	NA	NA	352	NA	200 J	97 J	39 J	66	NA
Beryllium	ug/L	- -	- -	290,000	32.3	4	- -	- -	0.4 U	NA	NA	NA	1 U	NA	1.1 J	0.4 UJ	0.4 U	1 U	NA
Cadmium	ug/L	- -	- -	190,000	4.8	5	- -	- -	0.14 J	NA	NA	NA	0.5 U	NA	0.14 J	0.063 J	0.2 U	0.5 U	NA

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(): / Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	RFI-36-02 03/25/03	RFI-36-02 10/13/04	RFI-36-02 11/02/06	RFI-36-02 11/14/07	RFI-36-02 10/11/12	RFI-36-02 11/07/12	RFI-38-04 09/27/01	RFI-38-04 06/13/02	RFI-38-04 03/25/03	RFI-38-04 10/10/12	RFI-38-04 10/18/12
Chromium Total	ug/L	- -	- -	460,000	11	100	- -	- -	0.43 J	NA	NA	NA	5 U	NA	1.4	1.1	1.7	5 U	NA
Cobalt	ug/L	- -	- -	2,400,000	100	100	- -	- -	12	NA	NA	NA	5 U	NA	2.7	1.6	0.42	5 U	NA
Copper	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	3.1	NA	NA	NA	NA	NA	2.3	5.8	2.1	NA	NA
Cyanide (total)	ug/L	- -	- -	57,000	5.2	200	- -	- -	5 U	NA	NA	NA	5 U	NA	2.9 J	NA	5 U	5 U	5 U [5 U]
Lead	ug/L	- -	- -	- -	30.9	4	- -	- -	1.3	NA	NA	NA	NA	NA	0.44	1 J	0.4 U	NA	NA
Manganese	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	640	NA	NA	NA	1,070	NA	880 J	490	240	19	NA
Mercury	ug/L	- -	- -	56	0.0013	2	56	56	0.2 U	NA	NA	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nickel	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	66	20	NA	NA	52	NA	21	12	3.9	5 U	NA
Selenium	ug/L	- -	- -	970,000	5	50	- -	- -	1.6 U	NA	NA	NA	5 U	NA	1.4 U	1.4 U	1.6 U	5 U	NA
Silver	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	0.4 U	NA	NA	NA	0.2 U	NA	0.4 U	0.4 UJ	0.4 U	0.2 U	NA
Thallium	ug/L	- -	- -	13,000	3.7	2	- -	- -	0.2 U	NA	NA	NA	2 U	NA	0.24 J	0.045 J	0.068 J	2 U	NA
Vanadium	ug/L	- -	- -	970,000	12	62	- -	- -	0.8 U	NA	NA	NA	NA	NA	0.8 U	0.75 J	0.8 U	NA	NA
Zinc	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	23 U	NA	NA	NA	5 U	NA	12 J	14 J	6.8 U	5 U	NA
Inorganic-Dissolved																			
Antimony (Dissolved)	ug/L	- -	- -	68,000	130	6	- -	- -	NA	NA	NA	NA	NA	NA	1.2 U	1.2 U	NA	NA	NA
Arsenic (Dissolved)	ug/L	- -	- -	4,300	10	10	- -	- -	NA	NA	NA	NA	NA	NA	1 U	3.3	NA	NA	NA
Barium (Dissolved)	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	NA	NA	NA	NA	NA	NA	150	140	NA	NA	NA
Beryllium (Dissolved)	ug/L	- -	- -	290,000	32.3	4	- -	- -	NA	NA	NA	NA	NA	NA	0.4 U	0.4 U	NA	NA	NA
Cadmium (Dissolved)	ug/L	- -	- -	190,000	4.8	5	- -	- -	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA
Chromium Total (Dissolved)	ug/L	- -	- -	460,000	11	100	- -	- -	NA	NA	NA	NA	NA	NA	0.75 J	4.9	NA	NA	NA
Cobalt (Dissolved)	ug/L	- -	- -	2,400,000	100	100	- -	- -	NA	NA	NA	NA	NA	NA	1.9	3.1	NA	NA	NA
Copper (Dissolved)	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	NA	NA	NA	NA	NA	NA	1.3	15 U	NA	NA	NA
Cyanide (dissolved)	ug/L	- -	- -	57,000	5.2	200	- -	- -	NA	NA	NA	NA	NA	NA	2.9 J	NA	NA	NA	NA
Lead (Dissolved)	ug/L	- -	- -	- -	30.9	4	- -	- -	NA	NA	NA	NA	NA	NA	0.4 U	**6.5**	NA	NA	NA
Manganese (Dissolved)	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	NA	NA	NA	NA	NA	NA	770 J	1,700 J	NA	NA	NA
Mercury (Dissolved)	ug/L	- -	- -	56	0.0013	2	56	56	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA
Nickel (Dissolved)	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	NA	NA	NA	NA	NA	NA	15	17	NA	NA	NA
Selenium (Dissolved)	ug/L	- -	- -	970,000	5	50	- -	- -	NA	NA	NA	NA	NA	NA	1.8 J	1.4 U	NA	NA	NA
Silver (Dissolved)	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	NA	NA	NA	NA	NA	NA	0.4 U	0.4 UJ	NA	NA	NA
Thallium (Dissolved)	ug/L	- -	- -	13,000	3.7	2	- -	- -	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA
Vanadium (Dissolved)	ug/L	- -	- -	970,000	12	62	- -	- -	NA	NA	NA	NA	NA	NA	0.8 U	4.5	NA	NA	NA
Zinc (Dissolved)	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	NA	NA	NA	NA	NA	NA	6.3 J	37 J	NA	NA	NA

Note:
During the 2012 sampling event two of the groundwater samples were accidentally mis-named in the field. The sample collected from monitoring well 36-101 was mis-named 38-101 and sample RFI-36-02 was mis-named RFI-38-02. The well names have been corrected on this table.

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(): Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	RFI-38-05 09/28/01	RFI-38-06 09/28/01	RFI-38-06 02/21/02	RFI-38-06 06/13/02	RFI-38-06 03/25/03	RFI-38-06 10/10/12
VOC														
1,1,1,2-Tetrachloroethane	ug/L	- -	- -	30,000	- -	320	96,000	1,100,000	NA	NA	NA	NA	NA	1 U [1 U]
1,1,1-Trichloroethane	ug/L	- -	1,300,000	1,300,000	89	200	1,300,000	1,330,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,1,2,2-Tetrachloroethane	ug/L	- -	- -	4,700	78	35	77,000	2,970,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,1,2-trichloro-1,2,2-trifluoroethane	ug/L	- -	170,000	170,000	32	170,000	170,000	170,000	1 U	1 U [1 U]	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	- -	- -	21,000	330	5	110,000	4,420,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,1-Dichloroethane	ug/L	380,000	- -	2,400,000	740	2,500	2,300,000	5,060,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,1-Dichloroethene	ug/L	97,000	140,000	11,000	130	7	1,300	2,250,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,2,3-Trichlorobenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	5 U [5 U]
1,2,3-Trichloropropane	ug/L	- -	- -	84,000	- -	120	18,000	1,900,000	NA	NA	NA	NA	NA	1 U [1 U]
1,2,3-Trimethylbenzene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	5 U	5 U [5 U]	NA	NA	NA	5 U [5 U]
1,2,4-Trimethylbenzene	ug/L	56,000	- -	56,000	17	2,900	56,000	55,890	NA	NA	NA	NA	NA	1 U [1 U]
1,2-Dibromo-3-chloropropane	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	1 U [1 U]	NA	NA	NA	5 U [5 U]
1,2-Dibromoethane	ug/L	- -	- -	25	5.7	0.05	15,000	4,200,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,2-Dichloroethane	ug/L	2,500,000	- -	19,000	360	5	59,000	8,520,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,2-Dichloropropane	ug/L	550,000	2,800,000	16,000	230	5	36,000	2,800,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,3,5-Trimethylbenzene	ug/L	- -	- -	61,000	45	2,900	61,000	61,150	NA	NA	NA	NA	NA	1 U [1 U]
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
2-Butanone	ug/L	- -	240,000,000	240,000,000	2,200	38,000	240,000,000	240,000,000	25 U	25 U [25 U]	NA	NA	NA	25 U [25 U]
2-Hexanone	ug/L	- -	- -	5,200,000	- -	2,900	8,700,000	16,000,000	50 U	50 U [50 U]	NA	NA	NA	50 U [50 U]
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	NA	NA	NA	NA	NA	5 U [5 U]
4-Methyl-2-pentanone	ug/L	- -	20,000,000	13,000,000	- -	5,200	20,000,000	20,000,000	50 U	50 U [50 U]	NA	NA	NA	50 U [50 U]
Acetone	ug/L	15,000,000	1,000,000,000	31,000,000	1,700	2,100	1,000,000,000	1,000,000,000	25 U	25 U [25 U]	NA	NA	NA	50 U [50 U]
Acrylonitrile	ug/L	6,400,000	- -	14,000	2	11	190,000	75,000,000	NA	NA	NA	NA	NA	2 U [2 U]
Benzene	ug/L	68,000	67,000	11,000	200	5	35,000	1,750,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Bromobenzene	ug/L	- -	- -	12,000	- -	50	390,000	413,000	NA	NA	NA	NA	NA	1 U [1 U]
Bromochloromethane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
Bromodichloromethane	ug/L	- -	- -	14,000	- -	80	37,000	6,740,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Bromoform	ug/L	- -	- -	140,000	- -	80	3,100,000	3,100,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Bromomethane	ug/L	- -	- -	70,000	35	29	9,000	14,500,000	1 U	1 U [1 U]	NA	NA	NA	5 U [5 U]
Carbon Disulfide	ug/L	13,000	- -	1,200,000	- -	2,300	550,000	1,190,000	5 U	5 U [5 U]	NA	NA	NA	5 U [5 U]
Carbon Tetrachloride	ug/L	- -	96,000	4,600	45	5	2,400	793,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Chlorobenzene	ug/L	160,000	- -	86,000	25	100	470,000	472,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Chloroethane	ug/L	110,000	- -	440,000	1,100	1,700	5,700,000	5,740,000	1 U	1 U [1 U]	NA	NA	NA	5 U [5 U]
Chloroform	ug/L	- -	- -	150,000	350	80	180,000	7,920,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Chloromethane	ug/L	36,000	210,000	490,000	- -	1,100	45,000	6,340,000	1 U	1 U [1 U]	NA	NA	NA	5 U [5 U]
cis-1,2-Dichloroethene	ug/L	530,000	- -	200,000	620	70	210,000	3,500,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
cis-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Cyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	5 U [5 U]	NA	NA	NA	NA
Dibromochloromethane	ug/L	- -	- -	18,000	- -	80	110,000	2,600,000	1 U	1 U [1 U]	NA	NA	NA	5 U [5 U]
Dibromomethane	ug/L	- -	- -	530,000	- -	230	- -	11,000,000	NA	NA	NA	NA	NA	5 U [5 U]
Dichlorodifluoromethane	ug/L	- -	- -	300,000	- -	4,800	300,000	300,000	1 U	1 U [1 U]	NA	NA	NA	5 U [5 U]
Diethyl ether	ug/L	650,000	61,000,000	35,000,000	- -	10,000	61,000,000	61,000,000	NA	NA	NA	NA	NA	10 U [10 U]
Ethylbenzene	ug/L	43,000	170,000	170,000	18	700	170,000	169,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	NA	NA	NA	NA	NA	5 U [5 U]
Iodomethane	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
Isopropylbenzene	ug/L	29,000	- -	56,000	28	2,300	56,000	56,000	5 U	5 U [5 U]	NA	NA	NA	5 U [5 U]
m&p-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	2 U	2 U [2 U]	NA	NA	NA	2 U [2 U]
Methyl acetate	ug/L	- -	- -	- -	- -	- -	- -	- -	5 U	5 U [5 U]	NA	NA	NA	NA
Methyl tert-butyl ether	ug/L	- -	- -	610,000	7,100	690	47,000,000	46,800,000	5 U	5 U [5 U]	NA	NA	NA	5 U [5 U]
Methylcyclohexane	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	1 U [1 U]	NA	NA	NA	NA
Methylene Chloride	ug/L	- -	- -	220,000	1,500	5	1,400,000	17,000,000	5 U	5 U [5 U]	NA	NA	NA	5 U [5 U]
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	NA	NA	NA	NA	NA	5 U [5 U]

Table 1B
Summary of Groundwater Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(): Date Collected:	Units	FE	GAI	GCC	GSI	NDW	NGVIA	WS	RFI-38-05 09/28/01	RFI-38-06 09/28/01	RFI-38-06 02/21/02	RFI-38-06 06/13/02	RFI-38-06 03/25/03	RFI-38-06 10/10/12
n-Butylbenzene	ug/L	- -	- -	5,900	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
n-Propylbenzene	ug/L	- -	- -	15,000	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
o-Xylene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
p-Isopropyltoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	5 U [5 U]
sec-Butylbenzene	ug/L	- -	- -	4,400	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
Styrene	ug/L	140,000	310,000	9,700	80	100	310,000	310,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
tert-Butylbenzene	ug/L	- -	- -	8,900	- -	230	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
Tetrachloroethene	ug/L	- -	200,000	12,000	60	5	170,000	200,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Tetrahydrofuran	ug/L	60,000	3,600,000	1,600,000	11,000	270	16,000,000	1,000,000,000	NA	NA	NA	NA	NA	90 U [90 U]
Toluene	ug/L	61,000	- -	530,000	270	1,000	530,000	526,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
trans-1,2-Dichloroethene	ug/L	230,000	- -	220,000	1,500	100	200,000	6,300,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
trans-1,3-Dichloropropene	ug/L	- -	- -	- -	- -	- -	- -	- -	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
trans-1,4-Dichloro-2-butene	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	1 U [1 U]
Trichloroethene	ug/L	- -	1,100,000	22,000	200	5	97,000	1,100,000	1 U	2.7 [2.4]	NA	NA	NA	**7 [8]**
Trichlorofluoromethane	ug/L	- -	1,100,000	1,100,000	- -	7,300	1,100,000	1,100,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
Vinyl Chloride	ug/L	33,000	- -	1,000	13	2	13,000	2,760,000	1 U	1 U [1 U]	NA	NA	NA	1 U [1 U]
SVOC														
1,1'-Biphenyl	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	- -	300,000	19,000	99	70	300,000	300,000	NA	NA	NA	NA	NA	5 U [5 U]
1,2-Dichlorobenzene	ug/L	- -	160,000	160,000	13	600	160,000	156,000	NA	NA	NA	NA	NA	1 U [1 U]
1,2-Diphenylhydrazine	ug/L	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	5 U [5 U]
1,3-Dichlorobenzene	ug/L	- -	- -	2,000	28	19	41,000	111,000	NA	NA	NA	NA	NA	1 U [1 U]
1,4-Dichlorobenzene	ug/L	- -	- -	6,400	17	75	74,000	73,800	NA	NA	NA	NA	NA	1 U [1 U]
2,2'-Oxybis(1-Chloropropane)	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2,4,5-Trichlorophenol	ug/L	- -	- -	170,000	- -	2,100	- -	1,200,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2,4,6-Trichlorophenol	ug/L	- -	- -	10,000	5	470	- -	800,000	4.2 U	4.2 U [4 U]	NA	NA	NA	4 U [4 U]
2,4-Dichlorophenol	ug/L	- -	- -	48,000	11	210	- -	4,500,000	11 U	11 U [10 U]	NA	NA	NA	10 U [10 U]
2,4-Dimethylphenol	ug/L	- -	- -	520,000	380	1,000	- -	7,870,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2,4-Dinitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	21 U	21 U [20 U]	NA	NA	NA	25 U [25 U]
2,4-Dinitrotoluene	ug/L	- -	- -	8,600	- -	32	- -	270,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2,6-Dinitrotoluene	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2-Chloronaphthalene	ug/L	- -	- -	6,700	- -	5,200	- -	6,740	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2-Chlorophenol	ug/L	- -	- -	94,000	18	130	1,100,000	22,000,000	5.3 U	5.3 U [5 U]	NA	NA	NA	10 U [10 U]
2-Methylnaphthalene	ug/L	- -	- -	25,000	19	750	25,000	24,600	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
2-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	10 U [10 U]
2-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	21 U	21 U [20 U]	NA	NA	NA	25 U [25 U]
2-Nitrophenol	ug/L	- -	- -	79,000	- -	58	- -	2,500,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
3&4-Methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	11 UJ	11 UJ [10 UJ]	NA	NA	NA	20 U [20 U]
3,3'-Dichlorobenzidine	ug/L	- -	- -	180	0.3	4.3	- -	3,110	21 U	21 U [20 U]	NA	NA	NA	5 U [5 U]
3-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	21 U	21 U [20 U]	NA	NA	NA	25 U [25 U]
4,6-Dinitro-2-methylphenol	ug/L	- -	- -	- -	- -	- -	- -	- -	21 U	21 U [20 U]	NA	NA	NA	20 U [20 U]
4-Bromophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
4-Chloro-3-Methylphenol	ug/L	- -	- -	79,000	7.4	420	- -	3,900,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
4-Chloroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	21 U	21 U [20 U]	NA	NA	NA	10 U [10 U]
4-Chlorophenyl-phenylether	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
4-Nitroaniline	ug/L	- -	- -	- -	- -	- -	- -	- -	21 UJ	21 UJ [20 UJ]	NA	NA	NA	25 U [25 U]
4-Nitrophenol	ug/L	- -	- -	- -	- -	- -	- -	- -	21 U	21 U [20 U]	NA	NA	NA	25 U [25 U]
Acenaphthene	ug/L	- -	- -	4,200	38	3,800	4,200	4,240	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Acenaphthylene	ug/L	- -	- -	3,900	- -	150	3,900	3,930	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Acetophenone	ug/L	- -	- -	6,100,000	- -	4,400	6,100,000	6,100,000	5.3 U	5.3 UJ [5 U]	NA	NA	NA	NA
Anthracene	ug/L	- -	- -	43	- -	43	43	43.4	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Atrazine	ug/L	- -	- -	5,400	7.3	3	- -	70,000	5.3 U	5.3 UJ [5 U]	NA	NA	NA	NA
Benzaldehyde	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	- -	- -	9.4	- -	8.5	- -	9.4	1.1 U	1.1 U [1 U]	NA	NA	NA	1 U [1 U]
Benzo(a)pyrene	ug/L	- -	- -	1	- -	5	- -	1.62	2.1 U	2.1 U [2 U]	NA	NA	NA	1 U [1 U]
Benzo(b)fluoranthene	ug/L	- -	- -	1.5	- -	1.5	- -	1.5	2.1 U	2.1 U [2 U]	NA	NA	NA	1 U [1 U]

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Benzo(g,h,i)perylene	ug/L	- -	- -	1	- -	1	- -	0.26	5.3 U	5.3 U [5 U]	NA	NA	NA	1 U [1 U]
Benzo(k)fluoranthene	ug/L	- -	- -	1	- -	1	- -	0.8	5.3 U	5.3 U [5 U]	NA	NA	NA	1 U [1 U]
bis(2-Chloroethoxy)methane	ug/L	- -	- -	- -	- -	- -	- -	- -	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
bis(2-Chloroethyl)ether	ug/L	17,000,000	17,000,000	5,700	1	8.3	210,000	17,200,000	1.1 U	1.1 U [1 U]	NA	NA	NA	5 U [5 U]
bis(2-Ethylhexyl)phthalate	ug/L	- -	340	320	25	6	- -	340	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Butylbenzylphthalate	ug/L	- -	- -	2,700	67	2,700	- -	2,690	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Caprolactam	ug/L	- -	1,000,000,000	390,000,000	- -	17,000	- -	5,250,000,000	11 U	11 U [10 U]	NA	NA	NA	NA
Carbazole	ug/L	- -	- -	7,400	10	350	- -	7,480	11 UJ	11 UJ [10 UJ]	NA	NA	NA	NA
Chrysene	ug/L	- -	- -	1.6	- -	1.6	- -	1.6	5.3 U	5.3 U [5 U]	NA	NA	NA	1 U [1 U]
Dibenzo(a,h)anthracene	ug/L	- -	- -	2	- -	2	- -	2.49	2.1 U	2.1 U [2 U]	NA	NA	NA	2 U [2 U]
Dibenzofuran	ug/L	- -	- -	- -	4	- -	10,000	10,000	4.2 U	4.2 U [4 U]	NA	NA	NA	4 U [4 U]
Diethylphthalate	ug/L	- -	- -	1,100,000	110	16,000	- -	1,080,000	1.23 J	1.6 J [5 U]	NA	NA	NA	5 U [5 U]
Dimethylphthalate	ug/L	- -	- -	4,200,000	- -	210,000	- -	4,190,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Di-n-Butylphthalate	ug/L	- -	- -	11,000	9.7	2,500	- -	11,200	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Di-n-Octylphthalate	ug/L	- -	- -	400	- -	380	- -	3,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Fluoranthene	ug/L	- -	- -	210	1.6	210	210	206	2.1 U	2.1 U [2 U]	NA	NA	NA	1 U [1 U]
Fluorene	ug/L	- -	- -	2,000	12	2,000	2,000	1,980	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Hexachlorobenzene	ug/L	- -	- -	4.6	0.2	1	3,000	6,200	1.1 U	1.1 U [1 U]	NA	NA	NA	5 U [5 U]
Hexachlorobutadiene	ug/L	- -	- -	400	0.053	42	3,200	3,230	5.3 U	5.3 U [5 U]	NA	NA	NA	10 U [10 U]
Hexachlorocyclopentadiene	ug/L	- -	- -	1,600	- -	50	420	1,800	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Hexachloroethane	ug/L	- -	- -	1,900	6.7	21	50,000	50,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Indeno(1,2,3-cd)pyrene	ug/L	- -	- -	2	- -	2	- -	0.022	2.1 U	2.1 U [2 U]	NA	NA	NA	2 U [2 U]
Isophorone	ug/L	- -	12,000,000	990,000	1,300	3,100	- -	12,000,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Methylphenols, Total	ug/L	- -	- -	810,000	30	1,000	- -	28,000,000	5.3 U	5.3 U [5 U]	NA	NA	NA	NA
Naphthalene	ug/L	- -	31,000	31,000	11	1,500	31,000	31,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Nitrobenzene	ug/L	- -	- -	11,000	180	9.6	550,000	2,090,000	2.1 U	2.1 U [2 U]	NA	NA	NA	5 U [5 U]
N-Nitroso-di-n-propylamine	ug/L	- -	- -	360	- -	5	- -	9,890,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
N-Nitrosodiphenylamine	ug/L	- -	- -	35,000	- -	1,100	- -	35,100	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Pentachlorophenol	ug/L	- -	- -	200	2.8	1	- -	1,850,000	21 U	21 U [20 U]	NA	NA	NA	5 U [5 U]
Phenanthrene	ug/L	- -	- -	1,000	2	150	1,000	1,000	5.3 U	5.3 U [5 U]	NA	NA	NA	2 U [2 U]
Phenol	ug/L	- -	- -	29,000,000	450	13,000	- -	82,800,000	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
Pyrene	ug/L	- -	- -	140	- -	140	140	135	5.3 U	5.3 U [5 U]	NA	NA	NA	5 U [5 U]
PCB														
Aroclor-1016	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Aroclor-1221	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Aroclor-1232	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Aroclor-1242	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Aroclor-1248	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Aroclor-1254	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Aroclor-1260	ug/L	- -	- -	- -	- -	- -	- -	- -	0.11 U	0.11 U [0.11 U]	NA	NA	NA	0.1 U [0.1 U]
Total PCBs	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	0.11 U	0.11 U [0.11 U]	NA	NA	NA	NA
PCB-Dissolved														
Aroclor-1016 (PCB-1016) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Aroclor-1221 (PCB-1221) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Aroclor-1232 (PCB-1232) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Aroclor-1242 (PCB-1242) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Aroclor-1248 (PCB-1248) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Aroclor-1254 (PCB-1254) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Aroclor-1260 (PCB-1260) (Dissolved)	ug/L	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Total PCBs (Dissolved)	ug/L	- -	- -	3.3	0.2	0.5	45	44.7	0.1 U	0.11 U [0.1 U]	NA	NA	NA	NA
Inorganic														
Antimony	ug/L	- -	- -	68,000	130	6	- -	- -	1.2 U	1.2 U [1.2 U]	NA	1.2 U	0.36 J	NA
Arsenic	ug/L	- -	- -	4,300	10	10	- -	- -	2.2 J	7.2 J [9.8 J]	NA	2.7	1.5	2 U [2 U]
Barium	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	160 J	150 J [140]	NA	83 J	98 J	70 [71]
Beryllium	ug/L	- -	- -	290,000	32.3	4	- -	- -	1.5 J	**1.5 J [34]**	NA	0.4 UJ	0.4 U	1 U [1 U]
Cadmium	ug/L	- -	- -	190,000	4.8	5	- -	- -	0.52 J	0.18 J [1.5 J]	NA	0.083 J	0.098 J	0.5 U [0.5 U]

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Chromium Total	ug/L	- -	- -	460,000	11	100	- -	- -	1.6	0.89 [3.2]	NA	0.22 J	0.38 J	5 U [5 U]
Cobalt	ug/L	- -	- -	2,400,000	100	100	- -	- -	2.3	7.5 [8.3]	NA	4.2	4.2	5 U [5 U]
Copper	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	7.5	2 [8.3]	NA	3.1	2.8	NA
Cyanide (total)	ug/L	- -	- -	57,000	5.2	200	- -	- -	5 U	5 U [5 U]	NA	NA	5 U	5 U [5 U]
Lead	ug/L	- -	- -	- -	30.9	4	- -	- -	0.51	0.48 [0.7 J]	NA	0.093 J	0.22 J	NA
Manganese	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	550 J	550 J [1,000]	NA	410	340	866 [886]
Mercury	ug/L	- -	- -	56	0.0013	2	56	56	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U	0.2 U [0.2 U]
Nickel	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	17	25 [30]	NA	13	15	11 [9]
Selenium	ug/L	- -	- -	970,000	5	50	- -	- -	1.6 J	1.4 U [2.3 J]	NA	1.4 U	1.6 U	5 U [5 U]
Silver	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	0.4 U	**0.21 J [1.2 J]**	NA	0.4 UJ	0.4 U	0.2 U [0.2 U]
Thallium	ug/L	- -	- -	13,000	3.7	2	- -	- -	0.46 J	**3.8 J [4.9]**	NA	**2.2**	**2.6**	2 U [2 U]
Vanadium	ug/L	- -	- -	970,000	12	62	- -	- -	0.8 U	0.8 U [5.4 J]	NA	0.8 U	0.8 U	NA
Zinc	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	110 J	11 J [23]	NA	7.9 J	13 U	6 [11]
Inorganic-Dissolved														
Antimony (Dissolved)	ug/L	- -	- -	68,000	130	6	- -	- -	1.2 U	1.2 U [1.2 U]	NA	NA	NA	NA
Arsenic (Dissolved)	ug/L	- -	- -	4,300	10	10	- -	- -	1 U	6.1 [6.2]	NA	NA	NA	NA
Barium (Dissolved)	ug/L	- -	- -	14,000,000	1,308	2,000	- -	- -	130	140 [130]	NA	NA	NA	NA
Beryllium (Dissolved)	ug/L	- -	- -	290,000	32.3	4	- -	- -	0.4 U	0.4 U [0.4 U]	NA	NA	NA	NA
Cadmium (Dissolved)	ug/L	- -	- -	190,000	4.8	5	- -	- -	0.6	0.2 U [0.2 U]	NA	NA	NA	NA
Chromium Total (Dissolved)	ug/L	- -	- -	460,000	11	100	- -	- -	0.74	0.6 U [0.6 U]	NA	NA	NA	NA
Cobalt (Dissolved)	ug/L	- -	- -	2,400,000	100	100	- -	- -	1.7	6.2 [6.4]	NA	NA	NA	NA
Copper (Dissolved)	ug/L	- -	- -	7,400,000	21.6	4,000	- -	- -	5.4	0.77 [0.73]	NA	NA	NA	NA
Cyanide (dissolved)	ug/L	- -	- -	57,000	5.2	200	- -	- -	5 U	5 U [5 U]	NA	NA	NA	NA
Lead (Dissolved)	ug/L	- -	- -	- -	30.9	4	- -	- -	0.4 U	0.4 U [0.4 U]	NA	NA	NA	NA
Manganese (Dissolved)	ug/L	- -	- -	9,100,000	4,767	2,500	- -	- -	520 J	550 J [520 J]	NA	NA	NA	NA
Mercury (Dissolved)	ug/L	- -	- -	56	0.0013	2	56	56	0.2 U	0.2 U [0.2 U]	NA	NA	NA	NA
Nickel (Dissolved)	ug/L	- -	- -	74,000,000	124.3	100	- -	- -	12	20 [21]	NA	NA	NA	NA
Selenium (Dissolved)	ug/L	- -	- -	970,000	5	50	- -	- -	1.4 U	2.1 [2.1 J]	NA	NA	NA	NA
Silver (Dissolved)	ug/L	- -	- -	1,500,000	0.2	98	- -	- -	0.4 U	0.4 U [0.4 U]	NA	NA	NA	NA
Thallium (Dissolved)	ug/L	- -	- -	13,000	3.7	2	- -	- -	0.2 U	**3.1 [3]**	**3.4**	NA	NA	NA
Vanadium (Dissolved)	ug/L	- -	- -	970,000	12	62	- -	- -	0.8 U	0.8 U [0.8 U]	NA	NA	NA	NA
Zinc (Dissolved)	ug/L	- -	- -	110,000,000	282.7	5,000	- -	- -	82 J	8.7 J [8.3 J]	NA	NA	NA	NA

Note:
During the 2012 sampling event two of the groundwater samples were accidentally mis-named in the field. The sample collected from monitoring well 36-101 was mis-named 38-101 and sample RFI-36-02 was mis-named RFI-38-02. The well names have been corrected on this table.

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12
VOC																					
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]	<0.38	<0.44	<0.42
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]	<0.38	<0.44	<0.42
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	**<0.03 M**	<0.02 M	**<0.03 M**	<0.02 M	**<0.03 M**	**<0.03 M [<0.02 M]**	<0.02 M	**<0.03 M**	**<0.03 M**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	<0.95	<0.9	<1.1	<0.9	<1.1	<1.1 [<0.89]	<0.87	<1	<0.94
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	<3	<3	<4	<3	<4	<4 [<3]	<3	<3	<3
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]	<0.38	<0.44	<0.42
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	<3	<3	<4	<3	<4	<4 [<3]	<3	<3	<3
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	<0.3	<0.2	<0.3	<0.2	<0.3	<0.3 [<0.2]	<0.2	<0.3	<0.3
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	**<0.3**	<0.2	**<0.3**	<0.2	**<0.3**	**<0.3 [<0.2]**	<0.2	**<0.3**	**<0.3**
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 [<0.4]	<0.3	<0.4	<0.4
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]	<0.3	<0.3	<0.3
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	<0.3	<0.2	<0.3	<0.2	<0.3	<0.3 [<0.2]	<0.2	<0.3	<0.3
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]	<0.38	<0.44	<0.42
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	<1	<1	<1	<1	<1	<1 [<1]	<1	<1	<1

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]	<0.06	<0.07	<0.06
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	**<0.06**	**<0.06**	**<0.07**	**<0.06**	**<0.07**	**<0.07 [<0.06]**	**<0.06**	**<0.07**	**<0.06**
SVOC																					
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**	**<0.33**	**<0.33**	**<0.33**
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]	<0.83	<0.83	<0.83
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]	<0.83	<0.83	<0.83
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<2	<2	<2	<2	<2	<2 [<2]	<2	<2	<2
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]	<0.83	<0.83	<0.83
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]	<0.83	<0.83	<0.83
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28 [<0.28]	<0.28	<0.28	<0.28
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]	<0.83	<0.83	<0.83
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]	<0.83	<0.83	<0.83
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	0.389	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.33	<0.33	<0.33	0.344	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**	**<0.33**	**<0.33**	**<0.33**
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.33	<0.33	<0.33	0.448	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	<0.33	<0.33	<0.33	0.578	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**	**<0.33**	**<0.33**	**<0.33**

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**	**<0.33**	**<0.33**	**<0.33**
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	<0.33	<0.33	<0.33	0.526	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
PCB																					
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]	<0.33	<0.33	<0.33
TPH																					
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																					
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 [<0.5]	<0.5	<0.5	<0.5
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	0.85	0.82	0.99	1.73	0.9	0.44 [0.44]	0.94	0.96	1
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	10.8	10.8	11.5	**76.9**	11.5	6.18 [6.34]	6.53	11.4	13.4
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	<0.2	<0.2	<0.2	0.3	<0.2	<0.2 [<0.2]	<0.2	<0.2	<0.2
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	<0.2	<0.2	<0.2	0.49	<0.2	<0.2 [<0.2]	<0.2	<0.2	<0.2
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	1.45	1.48	1.89	4.03	1.23	0.8 [0.79]	1	1.33	1.3
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	**2.3**	1.55	**2.75**	**3.65**	1.81	0.66 [0.66]	1.06	1.53	1.83
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	1.66	2.56	3.08	29.9	1.75	0.9 [1.01]	3.14	1.5	1.82
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	3.71	4.03	7.56	**63.4**	3.35	1.69 [1.83]	3.16	3.37	3.16
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**110**	**128**	**122**	**207**	**146**	**75.3 [70.5]**	**52.7**	**171**	**187**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	<0.05	<0.05	<0.05	**0.076**	<0.05	<0.05 [<0.05]	<0.05	<0.05	<0.05
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	1.85	2.24	2.76	6.99	2.63	3.81 [3.55]	1.79	2.34	2.87
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 [<0.4]	<0.4	<0.4	<0.4
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 [<0.2]	<0.2	<0.2	<0.2
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	3.92	4.97	6.56	**60.2**	5.46	2.97 [3.3]	6.54	4.47	5.49
Miscellaneous																					
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	880,000	920,000	880,000	900,000	890,000	800,000 [900,000]	920,000	870,000	870,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(ft): / Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12 0 - 2 03/21/13	RFI-38-12 0.7 - 1.4 10/12/12	RFI-38-12 3 - 5 03/21/13	RFI-38-12-1 0 - 2 03/21/13	RFI-38-12-1 3 - 5 03/21/13	RFI-38-12-2 0 - 2 03/21/13	RFI-38-12-2 3 - 5 03/21/13	RFI-38-12-4 0 - 2 03/21/13
VOC																				
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.5	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.2	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	<0.5	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.4	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	**<0.03 M**	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	<1.1	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	<4	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	<0.5	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	<4	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	<2	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	**<0.2**	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.2	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	<0.3	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	<0.4	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	<0.4	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	<0.4	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	<0.08	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.4	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	<0.4	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	**<0.3**	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	<0.5	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.2	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	<0.4	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	<0.2	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	<0.3	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	**<0.2**	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	<0.5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	<0.08	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.2	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	<2	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(ft): / Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12 0 - 2 03/21/13	RFI-38-12 0.7 - 1.4 10/12/12	RFI-38-12 3 - 5 03/21/13	RFI-38-12-1 0 - 2 03/21/13	RFI-38-12-1 3 - 5 03/21/13	RFI-38-12-2 0 - 2 03/21/13	RFI-38-12-2 3 - 5 03/21/13	RFI-38-12-4 0 - 2 03/21/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	<0.08	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.08	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	<0.08	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	**<0.08**	NA	NA	NA	NA	NA	NA
SVOC																				
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	**<0.33**	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.83	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.83	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<2	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.83	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.83	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.28	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.83	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.83	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	**<0.33**	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	**<0.33**	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12 0 - 2 03/21/13	RFI-38-12 0.7 - 1.4 10/12/12	RFI-38-12 3 - 5 03/21/13	RFI-38-12-1 0 - 2 03/21/13	RFI-38-12-1 3 - 5 03/21/13	RFI-38-12-2 0 - 2 03/21/13	RFI-38-12-2 3 - 5 03/21/13	RFI-38-12-4 0 - 2 03/21/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	**<0.33**	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	<0.33	NA	NA	NA	NA	NA	NA
PCB																				
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	<0.33	NA	NA	NA	NA	NA	NA
TPH																				
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																				
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	<0.5	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	3.04	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	**340**	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	2.7	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	0.94	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	**199**	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	**70.1**	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	**127**	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	<0.1	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	**133**	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**491**	**6,750**	**338**	**1,790**	**63.7**	**2,200**	**115**	**3,110**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	<0.05	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	**68.9**	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	<0.4	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	**1.08**	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	<0.2	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	**518**	NA	NA	NA	NA	NA	NA
Miscellaneous																				
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	930,000	910,000	860,000	840,000	860,000	880,000	880,000	870,000

Table 2A
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Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-4 3 - 5 03/21/13	RFI-38-12-5 0 - 2 03/21/13	RFI-38-12-5 3 - 5 03/21/13	RFI-38-12-6 0 - 2 03/21/13	RFI-38-12-6 3 - 5 03/21/13	RFI-38-12-7 0 - 2 03/21/13	RFI-38-12-7 3 - 5 03/21/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-4 3 - 5 03/21/13	RFI-38-12-5 0 - 2 03/21/13	RFI-38-12-5 3 - 5 03/21/13	RFI-38-12-6 0 - 2 03/21/13	RFI-38-12-6 3 - 5 03/21/13	RFI-38-12-7 0 - 2 03/21/13	RFI-38-12-7 3 - 5 03/21/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-4 3 - 5 03/21/13	RFI-38-12-5 0 - 2 03/21/13	RFI-38-12-5 3 - 5 03/21/13	RFI-38-12-6 0 - 2 03/21/13	RFI-38-12-6 3 - 5 03/21/13	RFI-38-12-7 0 - 2 03/21/13	RFI-38-12-7 3 - 5 03/21/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**1,180**	**4,440**	**210**	**339**	**47.9**	**177**	**228**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	930,000	830,000	850,000	840,000	830,000	900,000	870,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-8 0 - 2 03/21/13	RFI-38-12-8 3 - 5 03/21/13	RFI-38-12-9 0 - 2 03/21/13	RFI-38-12-9 3 - 5 03/21/13	RFI-38-12-10 0 - 2 05/09/13	RFI-38-12-11 1 - 2 05/09/13	RFI-38-12-12 0 - 2 05/09/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	NA	NA	NA

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Flint, Michigan

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Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-8 0 - 2 03/21/13	RFI-38-12-8 3 - 5 03/21/13	RFI-38-12-9 0 - 2 03/21/13	RFI-38-12-9 3 - 5 03/21/13	RFI-38-12-10 0 - 2 05/09/13	RFI-38-12-11 1 - 2 05/09/13	RFI-38-12-12 0 - 2 05/09/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**141**	**94.2**	**461**	**34.9**	**1,090**	**210**	**1,980**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	900,000	850,000	900,000	950,000	900,000	850,000	920,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-13 0 - 2 06/05/13	RFI-38-12-14 0 - 2 05/09/13	RFI-38-12-15 0 - 2 05/09/13	RFI-38-12-16 1 - 2 05/10/13	RFI-38-12-17 1 - 2 05/09/13	RFI-38-12-19 0 - 2 06/05/13	RFI-38-12-20 0 - 2 05/28/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICl	SDBL	RFI-38-12-13 0 - 2 06/05/13	RFI-38-12-14 0 - 2 05/09/13	RFI-38-12-15 0 - 2 05/09/13	RFI-38-12-16 1 - 2 05/10/13	RFI-38-12-17 1 - 2 05/09/13	RFI-38-12-19 0 - 2 06/05/13	RFI-38-12-20 0 - 2 05/28/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
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Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-13 0 - 2 06/05/13	RFI-38-12-14 0 - 2 05/09/13	RFI-38-12-15 0 - 2 05/09/13	RFI-38-12-16 1 - 2 05/10/13	RFI-38-12-17 1 - 2 05/09/13	RFI-38-12-19 0 - 2 06/05/13	RFI-38-12-20 0 - 2 05/28/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**170**	**466**	**355**	**718**	**464**	**431**	**604**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	870,000	890,000	860,000	900,000	900,000	890,000	900,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-21 0 - 2 06/05/13	RFI-38-12-22 1 - 2 10/30/13	RFI-38-12-23 1.2 - 2 10/30/13	RFI-38-12-24 1 - 2 10/30/13	RFI-38-12-25 0.8 - 2 10/30/13	RFI-38-12-26 0.5 - 2 10/30/13	RFI-38-12-27 0.5 - 2 10/30/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
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Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-21 0 - 2 06/05/13	RFI-38-12-22 1 - 2 10/30/13	RFI-38-12-23 1.2 - 2 10/30/13	RFI-38-12-24 1 - 2 10/30/13	RFI-38-12-25 0.8 - 2 10/30/13	RFI-38-12-26 0.5 - 2 10/30/13	RFI-38-12-27 0.5 - 2 10/30/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-21 0 - 2 06/05/13	RFI-38-12-22 1 - 2 10/30/13	RFI-38-12-23 1.2 - 2 10/30/13	RFI-38-12-24 1 - 2 10/30/13	RFI-38-12-25 0.8 - 2 10/30/13	RFI-38-12-26 0.5 - 2 10/30/13	RFI-38-12-27 0.5 - 2 10/30/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**386**	**594**	**699**	**1,140**	**688**	**2,070**	**1,230**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	890,000	950,000	870,000	870,000	870,000	860,000	870,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-28 0.5 - 2 10/30/13	RFI-38-12-29 0.5 - 2 10/30/13	RFI-38-12-30 0.5 - 2 10/30/13	RFI-38-12-31 1 - 2 10/30/13	RFI-38-12-32 0.5 - 2 10/30/13	RFI-38-12-33 0.5 - 2 10/30/13	RFI-38-12-34 1 - 2 10/30/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICl	SDBL	RFI-38-12-28 0.5 - 2 10/30/13	RFI-38-12-29 0.5 - 2 10/30/13	RFI-38-12-30 0.5 - 2 10/30/13	RFI-38-12-31 1 - 2 10/30/13	RFI-38-12-32 0.5 - 2 10/30/13	RFI-38-12-33 0.5 - 2 10/30/13	RFI-38-12-34 1 - 2 10/30/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-28 0.5 - 2 10/30/13	RFI-38-12-29 0.5 - 2 10/30/13	RFI-38-12-30 0.5 - 2 10/30/13	RFI-38-12-31 1 - 2 10/30/13	RFI-38-12-32 0.5 - 2 10/30/13	RFI-38-12-33 0.5 - 2 10/30/13	RFI-38-12-34 1 - 2 10/30/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**1,410**	**1,700**	**881**	**515**	**2,450**	**1,150**	**846**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	870,000	910,000	890,000	890,000	900,000	880,000	880,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-35 0.5 - 2 10/30/13	RFI-38-12-36 0.5 - 2 10/30/13	RFI-38-12-37 0.5 - 2 10/30/13	RFI-BG-08 0 - 2 08/29/02	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.46	NA	<0.49
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.1	NA	<0.1
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	<0.46	NA	<0.49
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.4	NA	<0.4
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	**<0.03 M**	NA	**<0.03 M**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	<1.1	NA	<1.1
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	<4	NA	<4
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	<0.46	NA	<0.49
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	<4	NA	<4
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	<1	NA	<1
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.1	NA	<0.1
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	<0.3	NA	<0.3
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	<0.07	NA	<0.07
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	**<0.3**	NA	**<0.3**
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.1	NA	<0.1
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	<0.4	NA	<0.4
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	<0.1	NA	<0.1
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	<0.3	NA	<0.3
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	<0.46	NA	<0.49
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	<0.07	NA	<0.07
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.1	NA	<0.1
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	<1	NA	<1

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-35 0.5 - 2 10/30/13	RFI-38-12-36 0.5 - 2 10/30/13	RFI-38-12-37 0.5 - 2 10/30/13	RFI-BG-08 0 - 2 08/29/02	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	<0.07	NA	<0.07
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.07	NA	<0.07
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	<0.07	NA	<0.07
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	<0.1	NA	<0.1
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	**<0.07**	NA	**<0.07**
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.83	NA	<0.83
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	<0.33	NA	<0.33
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.83	NA	<0.83
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	<0.33	NA	<0.33
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<2	NA	<2
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.83	NA	<0.83
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.83	NA	<0.83
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.28	NA	<0.28
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.83	NA	<0.83
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.83	NA	<0.83
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	<0.33	NA	<0.33
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	**<0.33**	NA	**<0.33**

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-12-35 0.5 - 2 10/30/13	RFI-38-12-36 0.5 - 2 10/30/13	RFI-38-12-37 0.5 - 2 10/30/13	RFI-BG-08 0 - 2 08/29/02	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	<0.33	NA	<0.33
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	<0.33	NA	<0.33
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	0.027 J	<0.5	0.013 J	<0.5
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	**8.5 J**	3.01	**6.5 J**	1.05
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	**80 J**	35.1	60 J	**89.6**
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	0.42	0.32	0.47	0.64
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	0.34 J	<0.2	0.33 J	<0.2
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	16 J	4.83	16 J	6.71
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	**6.7 J**	**11.3**	**6.4 J**	**11.6**
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	13 J	5.23	17 J	5.35
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	<0.1	NA	<0.1
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	**30 J**	9.49	**45 J**	11.5
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**897**	**1,120**	**2,040**	**500**	**481**	**380**	**537**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	**0.0556 J**	<0.05	**0.0761**	<0.05
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	14 J	15.6	19 J	16.5
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	0.039 J	<0.4	0.051 J	<0.4
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	0.094 J	<0.1	0.086 J	<0.1
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	0.15 J	<0.2	0.16 J	<0.2
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	24 J	NA	22 J	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	**85 J**	12.3	**87 J**	18.1
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	920,000	850,000	870,000	924,000	820,000	894,000	840,000

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Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICl	SDBL	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0 - 2 03/22/13	RFI-BG-10-2 0.6 - 1 10/11/12	RFI-BG-10-2 3 - 5 03/22/13	RFI-BG-10-3 0 - 2 03/22/13	RFI-BG-10-3 3 - 5 03/22/13	RFI-BG-10-4 0 - 2 03/22/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	<0.1	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.43	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	<0.1	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	<0.43	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.3	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	**<0.03 M**	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	<0.07	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	<0.1	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	<0.1	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	<0.98	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	<3	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	<0.43	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	<3	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	<1	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	<0.3	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	<0.3	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	<0.3	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	<0.07	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	<0.07	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.3	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	**<0.3**	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	<0.4	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	<0.1	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	<0.43	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.07	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.1	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	<0.07	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	<0.07	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	<1	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICl	SDBL	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0 - 2 03/22/13	RFI-BG-10-2 0.6 - 1 10/11/12	RFI-BG-10-2 3 - 5 03/22/13	RFI-BG-10-3 0 - 2 03/22/13	RFI-BG-10-3 3 - 5 03/22/13	RFI-BG-10-4 0 - 2 03/22/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	<0.1	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	<0.07	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	<0.07	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.07	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	<0.07	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	**<0.07**	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	<0.33	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	<0.33	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	<0.33	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	<0.33	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	<0.33	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<2	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.28	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(ft): / Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICl	SDBL	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0 - 2 03/22/13	RFI-BG-10-2 0.6 - 1 10/11/12	RFI-BG-10-2 3 - 5 03/22/13	RFI-BG-10-3 0 - 2 03/22/13	RFI-BG-10-3 3 - 5 03/22/13	RFI-BG-10-4 0 - 2 03/22/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	<0.33	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	<0.33	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	<0.33	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	0.042 J	NA	<0.5	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	**5.5 J**	NA	1.29	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	**150 J**	NA	23.1	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	0.89	NA	<0.2	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	1.1	NA	<0.2	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	**47 J**	NA	11.7	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	**3.8 J**	NA	**11.5**	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	29 J	NA	9	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	<0.1	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	**190 J**	NA	8.36	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**2,100**	**1,470**	**366**	**527**	**300**	**472**	**708**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	0.0265 J	NA	<0.05	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	17 J	NA	9.25	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.12 J	NA	<0.4	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	**0.26 J**	NA	<0.1	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	0.1 J	NA	<0.2	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	14 J	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	**720 J**	NA	14.9	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	935,000	920,000	880,000	850,000	940,000	920,000	890,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-BG-10-4 3 - 5 03/22/13	RFI-BG-10-5 0 - 2 03/22/13	RFI-BG-10-5 3 - 5 03/22/13	RFI-BG-10-6 0 - 2 03/22/13	RFI-BG-10-6 3 - 5 03/22/13	RFI-BG-10-8 0.3 - 2 10/30/13	RFI-BG-10-9 0.3 - 2 10/30/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-BG-10-4 3 - 5 03/22/13	RFI-BG-10-5 0 - 2 03/22/13	RFI-BG-10-5 3 - 5 03/22/13	RFI-BG-10-6 0 - 2 03/22/13	RFI-BG-10-6 3 - 5 03/22/13	RFI-BG-10-8 0.3 - 2 10/30/13	RFI-BG-10-9 0.3 - 2 10/30/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-BG-10-4 3 - 5 03/22/13	RFI-BG-10-5 0 - 2 03/22/13	RFI-BG-10-5 3 - 5 03/22/13	RFI-BG-10-6 0 - 2 03/22/13	RFI-BG-10-6 3 - 5 03/22/13	RFI-BG-10-8 0.3 - 2 10/30/13	RFI-BG-10-9 0.3 - 2 10/30/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	**128**	**447**	**646**	**284**	**569**	**631**	**1,240**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	770,000	880,000	900,000	890,000	880,000	900,000	910,000

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: / Sample Depth(ft): / Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	SB-38-01 1 - 2 09/05/13	SB-38-02 2 - 3 09/05/13	SB-38-03 6 - 7 09/05/13	SB-38-04 2 - 3 09/05/13	SB-38-05 3 - 3.5 09/05/13	SB-38-06 7 - 9 09/05/13
VOC																		
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	33	330	210	120	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	460	31,000	15,000	4,500	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	23	34	34	34	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	24	120	57	57	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	430	14,000	6,000	2,500	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	0.33	37	15	3.7	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.38	<0.39	<0.38	<0.41	<0.41	<0.47
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	7.5	12	11	11	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	<0.38	<0.39	<0.38	<0.41	<0.41	<0.47
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	110 {(C)}	600,000	600,000	25,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	3.6	9.8	5.8	5.8	{NA}	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	**<0.03 M**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	11	74	33	21	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	7.4	120	51	30	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	94 {(C)}	460,000	460,000	19,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	27,000 {(C)}	36,000	35,000	35,000	{NA}	<0.87	<0.88	<0.86	<0.93	<0.93	<1.1
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	1,800	1,500	1,300	1,300	{NA}	<3	<3	<3	<3	<3	<4
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	<0.38	<0.39	<0.38	<0.41	<0.41	2.26
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	2,700 {(C)}	70,000	53,000	53,000	{NA}	<3	<3	<3	<3	<3	<4
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	110,000 {(C)}	200,000	160,000	160,000	{NA}	<1	<1	<1	<1	<1	<1
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	35	31	17	17	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	8.4	230	99	45	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	580	540	540	540	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	6.4	57	31	31	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	770	3,100	3,100	3,100	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	{NA}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	140	19,000	8,000	1,600	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	0.99	79	34	12	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	220	2,100	1,100	920	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	950 {(C)}	280,000	120,000	36,000	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	38	790	340	150	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	10	2,500	1,000	120	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	41	1,000	430	210	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	21	98	80	80	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	1,700	1,400,000	550,000	63,000	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	7,400 {(C)}	350,000	160,000	100,000	{NA}	<0.2	<0.2	<0.2	<0.2	<0.2	**<0.3**
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	140 {(C)}	6,500	3,100	2,400	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	<0.3	<0.4	<0.3	<0.4	<0.4	<0.4
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	390 {(C)}	3,000	2,000	2,000	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	5,900 {(C)}	89,000	41,000	30,000	{NA}	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	240	4,000	1,700	700	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	<0.38	<0.39	<0.38	<0.41	<0.41	**1.95**
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{ID}	{ID}	{ID}	{ID}	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{ID}	{ID}	{ID}	{ID}	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	150 {(C)}	130,000	65,000	54,000	- -	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	- -	- -	- -	- -	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	520 {(C)}	4,200	3,300	3,300	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{ID}	{ID}	{ID}	{ID}	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	21	1,100	490	210	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	{NA}	<1	<1	<1	<1	<1	<1

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	SB-38-01 1 - 2 09/05/13	SB-38-02 2 - 3 09/05/13	SB-38-03 6 - 7 09/05/13	SB-38-04 2 - 3 09/05/13	SB-38-05 3 - 3.5 09/05/13	SB-38-06 7 - 9 09/05/13
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	250 {(C)}	36,000	36,000	3,300	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	43	2,000	840	330	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	5.4	470	200	60	- -	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	1.9	58	25	14	{NA}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	560 {(C)}	140,000,000	140,000,000	110,000	{NA}	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	2.8	420	170	29	{NA}	**<0.06**	**<0.06**	**<0.06**	**<0.06**	**<0.06**	**<0.07**
SVOC																		
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	1,100 {(C)}	34,000	34,000	34,000	{NA}	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	210 {(C)}	55,000	46,000	46,000	{NA}	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	48	110	94	94	{NA}	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	100	340	260	260	{NA}	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.3	<0.3	<0.3	<0.3	<0.3	3.9 Y
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	800	1,100	1,100	1,100	{NA}	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	**4.5 Y**
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NLV}	{NLV}	{NLV}	{NLV}	- -	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	350,000	97,000	97,000	97,000	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	**16.9 Y**
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	3,000	2,700	2,700	2,700	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	5.6 Y
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	1,000,000 {(D)}	1,600,000	1,600,000	1,600,000	{NA}	<0.3	<0.3	<0.3	0.9	<0.3	**41.9 Y**
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.3	<0.3	<0.3	2.6	<0.3	**122.2 Y**
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.3	<0.3	<0.3	2.5	<0.3	**125.8 Y**
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.3	<0.3	<0.3	4.4 p	<0.3	**218.1 Yp**
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.3	<0.3	<0.3	1.5	<0.3	53.4 Y
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.3	<0.3	<0.3	4.8 p	<0.3	242.5 Yp
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	44	13	13	13	{NA}	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{ID}	{ID}	{ID}	{ID}	{NA}	<0.3	<0.3	<0.3	3	<0.3	133.5 Y
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.3	<0.3	<0.3	0.6	<0.3	**26.3 Y**
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	3,600	160	160	160	{NA}	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	1,000,000 {(D)}	880,000	880,000	890,000	{NA}	<0.3	<0.3	<0.3	**6**	<0.3	**255.6 Y**
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	1,000,000 {(D)}	150,000	150,000	150,000	{NA}	<0.3	<0.3	<0.3	0.5	<0.3	**20.9 Y**
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	220	56	56	56	{NA}	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	350 {(C)}	460	460	460	{NA}	NA	NA	NA	NA	NA	NA

Table 2A
Summary of 2012 - 2013 Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	SB-38-01 1 - 2 09/05/13	SB-38-02 2 - 3 09/05/13	SB-38-03 6 - 7 09/05/13	SB-38-04 2 - 3 09/05/13	SB-38-05 3 - 3.5 09/05/13	SB-38-06 7 - 9 09/05/13
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	56	60	60	60	{NA}	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	79	1,400	1,400	660	{NA}	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	<0.3	<0.3	<0.3	1.4	<0.3	54.1 Y
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	470	350	350	350	{NA}	<0.3	<0.3	<0.3	<0.3	<0.3	**4.6 Y**
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	170	64	64	64	{NA}	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	5,100	190	190	190	{NA}	<0.3	<0.3	<0.3	**5.6**	<0.3	**177.9 Y**
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NLV}	{NLV}	{NLV}	{NLV}	{NA}	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	1,000,000 {(D)}	780,000	780,000	780,000	{NA}	<0.3	<0.3	<0.3	4.6	<0.3	212.7 Y
PCB																		
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	16,000	28,000	28,000	810	- -	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
TPH																		
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<4	65 Y	11	285 YS	201 YS	570 Y
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<4	70 Y	21	NA	NA	754 Y
Inorganic																		
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	- -	- -	- -	- -	75	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	- -	- -	- -	- -	1.2	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	{NLV}	{NLV}	{NLV}	{NLV}	18	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	- -	- -	- -	- -	32	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	- -	- -	- -	- -	0.39 {(total)}	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	- -	- -	- -	- -	21	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	- -	- -	- -	- -	440	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	89	62	62	62	0.13	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	- -	- -	- -	- -	20	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	- -	- -	- -	- -	1	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	- -	- -	- -	- -	{NA}	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	- -	- -	- -	- -	47	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Total Solids	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	910,000	940,000	930,000	910,000	910,000	840,000

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-36-02 1 - 3 09/17/01	RFI-36-02 7 - 9 09/17/01	RFI-36-02 9 - 11 09/17/01	RFI-36-02 13 - 15 09/17/01	RFI-38-01 0.5 - 2.5 07/23/01	RFI-38-01 8.5 - 10.5 07/23/01
VOC																		
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	0.27 UJ	0.31 UJ	0.26 UJ [0.25 UJ]	0.27 UJ	0.031 J	0.27 U
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	0.27 U	0.31 U	0.26 U [0.25 U]	0.27 U	0.27 U	0.27 U
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	0.27 U	0.31 U	0.26 U [0.25 U]	0.27 U	0.27 U	0.27 U
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	0.27 UJ	0.31 UJ	0.26 UJ [0.25 UJ]	0.27 UJ	0.36 UJ	0.27 UJ
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.27 U	0.31 U	0.26 U [0.25 U]	0.27 U	0.27 U	0.27 U
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.19 U	0.16 U [0.15 U]	0.16 U	0.16 U	0.16 U
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.033 J	0.036 J	0.034 J [0.042 J]	0.033 J	0.16 U	0.16 U

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-36-02 1 - 3 09/17/01	RFI-36-02 7 - 9 09/17/01	RFI-36-02 9 - 11 09/17/01	RFI-36-02 13 - 15 09/17/01	RFI-38-01 0.5 - 2.5 07/23/01	RFI-38-01 8.5 - 10.5 07/23/01
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.037 U	0.044 U	0.037 U [0.036 U]	0.037 U	0.038 U	0.037 U
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.075 U	0.087 U	0.074 U [0.071 U]	0.074 U	0.076 U	0.075 U
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 U	0.18 U	0.18 U	0.19 UJ	0.18 UJ
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.737	0.0459 J
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.599	0.18 U
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.591	0.18 U
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.362 J	0.18 U
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.608	0.18 U
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.036 U	0.042 U	0.035 U	0.035 U	0.036 U	0.035 U
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.19 U	0.18 U
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.0508 J	0.22 UJ	0.18 UJ	0.18 U	0.19 U	0.18 U
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 UJ
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.0564 J	0.18 U
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.81	0.0505 J
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.19 U	0.18 U
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.175 J	0.18 U
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.19 U	0.18 U
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.19 U	0.22 U	0.18 U	0.18 U	1.33	0.0978 J
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.092 J	0.18 U
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	0.343	0.18 U
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.201	0.18 U
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.073 U	0.085 U	0.07 U	0.072 U	0.074 U	0.071 U
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.73 U	0.85 U	0.7 U	0.72 U	0.74 U	0.71 U
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.19 U	0.22 U	0.18 U	0.18 U	1.13	0.129 J
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.19 U	0.22 U	0.18 U	0.18 U	0.19 U	0.18 U
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.19 UJ	0.22 UJ	0.18 UJ	0.18 U	1.15	0.0823 J
PCB																		

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-36-02 1 - 3 09/17/01	RFI-36-02 7 - 9 09/17/01	RFI-36-02 9 - 11 09/17/01	RFI-36-02 13 - 15 09/17/01	RFI-38-01 0.5 - 2.5 07/23/01	RFI-38-01 8.5 - 10.5 07/23/01
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	0.038 U	0.044 U	0.037 U	0.037 U	0.039 U	0.037 U
Inorganic																		
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	0.71 J	0.18 J	0.11 J	0.11 J	0.28 UJ	0.19 UJ
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	3.6 J	4.2 J	3.1 J	4 J	**6.4**	3.3
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	12 J	16 J	8.5 J	7.6 J	38 J	8.6 J
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.091 J	0.12 J	0.058 J	0.061 J	0.66	0.15
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.073 J	0.1 J	0.065 J	0.1 J	0.76	0.069
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	5 J	7.6 J	4.5 J	4.2 J	28 J	5.8 J
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	2.5 J	3.1 J	2.4 J	2.3 J	4.9	2.6
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	6.5 J	7.9 J	5.6 J	5.8 J	19 J	5.6 J
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	R	R
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	5 J	6.3 J	4.1 J	5.1 J	20 J	5 J
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	120 J	180 J	110 J	120 J	**620 J**	110 J
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.075 U	0.083 U	0.073 U	0.073 U	0.0543 J	0.074 U
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	6.8 J	8.4 J	5.8 J	5.6 J	15	5.7
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.15 J	0.15 J	0.064 J	0.061 J	0.54 U	0.076 U
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.11 J	0.14 J	0.051 J	0.048 J	0.086 J	0.025 J
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.07 J	0.075 J	0.045 J	0.058 J	0.21 J	0.042 J
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	8.6 J	10 J	7.8 J	7.2 J	23	9.8
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	23 J	28 J	21 J	23 J	55 J	19 J

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-01 18.5 - 20.5 07/23/01	RFI-38-02 1 - 3 07/19/01	RFI-38-02 5 - 7 07/19/01	RFI-38-02 15 - 17 07/19/01	RFI-38-03 1 - 3 07/18/01	RFI-38-03 5 - 7 07/18/01
VOC																		
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 UJ [0.16 U]
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	0.28 U [0.28 U]	0.28 U	0.28 U	0.26 U	0.26 U	0.26 U [0.27 U]
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	0.28 U [0.28 U]	0.28 U	0.28 U	0.26 U	0.26 U	0.26 U [0.27 U]
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	0.28 U [0.28 U]	0.28 U	0.28 U	0.26 U	0.26 U	0.26 U [0.27 U]
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	0.38 UJ [0.34 UJ]	0.28 U	0.28 U	0.26 U	0.26 U	0.26 U [0.27 U]
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.069 J [0.16 U]
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.28 U [0.28 U]	0.28 U	0.28 U	0.26 U	0.26 U	0.26 U [0.27 U]
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.17 U [0.17 U]	0.17 U	0.17 U	0.16 U	0.16 U	0.16 U [0.16 U]

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-01 18.5 - 20.5 07/23/01	RFI-38-02 1 - 3 07/19/01	RFI-38-02 5 - 7 07/19/01	RFI-38-02 15 - 17 07/19/01	RFI-38-03 1 - 3 07/18/01	RFI-38-03 5 - 7 07/18/01
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.039 U [0.04 U]	0.04 U	0.039 U	0.037 U	0.036 U	0.037 U [0.037 U]
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.079 U [0.079 U]	0.08 U	0.078 U	0.073 U	0.072 U	0.074 U [0.075 U]
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.19 UJ [0.2 UJ]	0.19 UJ	0.19 U	0.18 UJ	0.18 UJ	0.18 UJ [0.18 UJ]
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0759 J [0.18 U]
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0931 J [0.18 U]
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.079 J [0.18 U]
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0495 J [0.18 U]
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0776 J [0.18 U]
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.038 U [0.038 U]	0.037 U	0.037 U	0.034 U	0.034 U	0.035 U [0.035 U]
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.134 J	0.229 J	0.18 U	0.18 U [0.18 U]
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	0.19 UJ [0.2 UJ]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0825 J [0.18 U]
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.0566 J	0.18 U	0.18 U	0.18 U [0.0661 J]
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.329 J	0.0685 J	0.18 U	0.18 U	0.18 U [0.0486 J]
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0984 J [0.18 U]
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.0492 J [0.18 U]
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.076 U [0.077 U]	0.076 U	0.075 U	0.069 U	0.07 U	0.071 U [0.07 U]
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.76 U [0.77 U]	0.76 U	0.75 U	0.69 U	0.7 U	0.71 U [0.7 U]
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.19 U [0.2 U]	0.19 U	0.19 U	0.18 U	0.18 U	0.124 J [0.18 U]
PCB																		

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-01 18.5 - 20.5 07/23/01	RFI-38-02 1 - 3 07/19/01	RFI-38-02 5 - 7 07/19/01	RFI-38-02 15 - 17 07/19/01	RFI-38-03 1 - 3 07/18/01	RFI-38-03 5 - 7 07/18/01
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	0.04 U [0.04 U]	0.04 U	0.039 U	0.036 U	0.036 U	0.037 U [0.037 U]
Inorganic																		
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	0.22 UJ [0.2 UJ]	R	R	0.37 J	R	R [R]
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	1.9 [2.1]	3.7	3.9	2.4	3.6	4.1 [3.6]
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	4.4 J [4.7 J]	20	52	5.9	15	16 [17]
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.062 J [0.082]	0.15	0.33	0.078	0.13	0.15 [0.14]
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.093 [0.085]	0.14	0.16	0.054	0.096	0.12 [0.097]
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	3.3 J [3 J]	7	10	3.6	5.3	6.2 [5.8]
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	1.6 [1.7]	3	5.4	1.7	2.5	2.6 [2.5]
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	3 J [3.3 J]	6.1	7.7	3.1	5.8	7.3 [6.8]
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	R [R]	0.2 U	0.059 J	0.2 U	0.2 U	0.026 J [0.01 J]
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	3.1 J [3.1 J]	4.9	10	3	4.4	6.7 [6.3]
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	99 J [100 J]	120 J	390 J	72 J	120 J	170 J [120 J]
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.08 U [0.079 U]	0.0228 J	0.0443 J	0.072 U	0.0233 J	0.0267 J [0.0274 J]
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	5 [5.1]	7.3	9.9	4.6	6.1	6.9 [6.2]
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.15 U [0.08 U]	0.27	0.42	0.27 J	0.33 J	0.34 [0.21]
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.024 J [0.051 J]	0.2	0.032 J	0.024 J	0.062 J	0.028 J [0.036 J]
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.063 J [0.054 J]	0.051 J	0.12 J	0.034 J	0.055 J	0.066 J [0.052 J]
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	5.2 [5.2]	12	25	6.5	11	11 [9.3]
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	16 J [16 J]	45	36	17	23	27 [25]

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-03 9 - 11 07/18/01	RFI-38-03 17 - 19 07/18/01	RFI-38-04 0.2 - 2.2 08/21/01	RFI-38-04 8.2 - 10.2 08/21/01	RFI-38-04 16.2 - 18.2 08/21/01	RFI-38-05 0.6 - 2.6 08/24/01	RFI-38-05 8.6 - 10.6 08/24/01
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.031 J	0.16 U	0.17 U [0.17 U]
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	0.26 U	0.28 U	0.27 UJ	0.27 UJ	0.26 UJ	0.27 U	0.28 U [0.28 U]
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	0.26 U	0.28 U	0.27 U	0.27 U	0.26 U	0.27 U	0.28 U [0.28 U]
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	0.26 U	0.28 U	0.27 U	0.27 U	0.26 U	0.27 U	0.28 U [0.28 U]
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	0.26 U	0.28 U	0.27 UJ	0.27 UJ	0.26 UJ	0.27 UJ	0.28 UJ [0.28 UJ]
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.16 U	0.17 U	0.16 UJ	0.16 UJ	0.16 UJ	0.16 U	0.17 U [0.17 U]
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 UJ]
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.16 U	0.17 U	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.17 UJ [0.17 U]
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 UJ]
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.18	0.04 U [0.04 U]
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.035 J	0.17 U [0.17 U]
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.12	0.079 U [0.08 U]
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.26 U	0.28 U	0.27 U	0.27 U	0.26 U	0.27 U	0.28 U [0.28 U]
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.16 U	0.17 U	0.029 J	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.094 J	0.05 J	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U [0.17 U]

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-03 9 - 11 07/18/01	RFI-38-03 17 - 19 07/18/01	RFI-38-04 0.2 - 2.2 08/21/01	RFI-38-04 8.2 - 10.2 08/21/01	RFI-38-04 16.2 - 18.2 08/21/01	RFI-38-05 0.6 - 2.6 08/24/01	RFI-38-05 8.6 - 10.6 08/24/01
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.031 J	0.04 U [0.04 U]
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.038 U	0.04 U [0.04 U]
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.074 U	0.077 U	0.077 U	0.076 U	0.074 U	0.076 U	0.079 U [0.08 U]
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 UJ	0.18 UJ	0.18 U	0.19 U [0.19 U]
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.18 UJ	0.19 UJ	0.19 U	0.18 UJ	0.18 UJ	0.18 U	0.19 U [0.19 U]
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.598	0.18 U	0.18 U	0.439	0.0538 J [0.19 U]
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.745 J	0.18 U	0.18 U	0.305	0.0505 J [0.19 U]
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.869 J	0.18 U	0.18 U	0.585	0.0449 J [0.19 UJ]
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.513 J	0.18 U	0.18 U	0.18 U	0.19 UJ [0.19 UJ]
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.843 J	0.18 U	0.18 U	0.331	0.0557 J [0.19 UJ]
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.035 U	0.036 U	0.037 U	0.035 U	0.034 U	0.035 U	0.037 U [0.037 U]
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.18 U	0.0959 J	0.19 U	0.18 U	0.18 U	0.18 U	0.0672 J [0.508 J]
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.119 J	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 UJ	0.18 UJ	0.18 U	0.19 U [0.19 U]
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.107 J	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.838	0.18 U	0.18 U	0.489	0.0583 J [0.19 U]
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 UJ	0.18 U	0.18 U	0.18 U	0.19 UJ [0.19 UJ]
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.0522 J	0.19 U [0.19 U]
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.126 J	0.15 J	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 UJ	0.18 U	0.18 U	0.18 U	0.19 UJ [0.19 UJ]
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.0444 J	0.19 U	1.33	0.18 U	0.18 U	0.895	0.143 J [0.0475 J]
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.0682 J	0.19 U [0.19 U]
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.489 J	0.18 U	0.18 U	0.12 J	0.19 UJ [0.19 UJ]
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.071 U	0.074 U	0.074 U	0.071 U	0.07 U	0.072 U	0.075 U [0.075 U]
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.71 U	0.74 U	0.74 U	0.71 U	0.7 U	0.72 U	0.75 U [0.75 U]
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.0373 J	0.19 U	0.755	0.18 U	0.18 U	0.521	0.136 J [0.0624 J]
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U [0.19 U]
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.18 U	0.19 U	1.91	0.18 U	0.18 U	1.33	0.16 J [0.0523 J]
PCB																			

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-03 9 - 11 07/18/01	RFI-38-03 17 - 19 07/18/01	RFI-38-04 0.2 - 2.2 08/21/01	RFI-38-04 8.2 - 10.2 08/21/01	RFI-38-04 16.2 - 18.2 08/21/01	RFI-38-05 0.6 - 2.6 08/24/01	RFI-38-05 8.6 - 10.6 08/24/01
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.039 U	0.037 U	0.036 U	0.038 U	0.039 U [0.039 U]
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.039 U	0.037 U	0.036 U	0.038 U	0.039 U [0.039 U]
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.039 U	0.037 U	0.036 U	0.038 U	0.039 U [0.039 U]
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.039 U	0.037 U	0.036 U	0.038 U	0.039 U [0.039 U]
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.039 U	0.037 U	0.036 U	0.038 U	0.039 U [0.079]
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.039 U	0.037 U	0.036 U	0.038 U	0.039 U [0.039 U]
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.037 U	0.039 U	0.019 J	0.037 U	0.036 U	0.038 U	0.039 U [0.039 U]
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	0.037 U	0.039 U	0.019 J	0.037 U	0.036 U	0.038 U	0.039 U [0.079]
Inorganic																			
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	R	R	0.24 UJ	0.27 UJ	0.22 UJ	0.25 U	0.25 U [0.24 U]
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	4.7	2.4	4.5	3.7	2.7	4.8	3.9 [3.5 U]
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	27	8.3	16	5.6	7.6	62	12 [11]
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.26	0.12	0.17	0.078 J	0.067 J	0.6	0.15 [0.15]
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.11	0.12	0.29	0.078	0.064	0.29	0.09 [0.081]
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	12	4.7	8.6	3.9	4.9	27	5.7 [5]
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	3.6	1.4	3.2	2.1	2	6	3 [2.5]
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	11	5	9.2	5 U	5.3 U	24	5.8 [4.5]
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	0.041 J	0.033 J	0.12 J	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	9.8	3.8	13 J	3.9 J	4 J	24	5.5 [4.9]
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	200 J	65 J	280	120 J	100 J	**620**	100 [100]
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.0287 J	0.077 U	0.078 U	0.073 U	0.072 U	0.0266 J	0.078 U [0.079 U]
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	10	5.1	16	5.4	5.6	18	6.9 [6.1]
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.39 J	0.38	0.21	0.21 J	0.27 J	0.12	0.06 J [0.095 U]
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.046 J	0.02 J	0.14 J	0.34	0.074 J	0.25	0.13 J [0.091 J]
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.1 J	0.044 J	0.073 J	0.04 J	0.034 J	0.16 J	0.066 J [0.062 J]
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	14	9	12	7.2	8.2	20	11 [9.4]
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	31	22	33	21	18	63	27 [21]

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-05 14.6 - 16.6 08/24/01	RFI-38-06 0.5 - 2.5 08/24/01	RFI-38-06 8.5 - 10.5 08/24/01	RFI-38-06 12.5 - 14.5 08/24/01	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12
VOC																		
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	NA	NA	NA	NA	0.1 U	0.1 U
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.06 U	0.06 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	0.17 U	0.16 U	0.16 U	0.16 U	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.42 U	0.4 U
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	NA	NA	NA	NA	0.1 U	0.1 U
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	0.1 U
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.42 U	0.4 U
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	NA	NA	NA	NA	0.1 U	0.1 U
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.3 U	0.3 U
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.03 UM	0.02 UM
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	NA	NA	NA	NA	0.1 U	0.1 U
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	0.28 U	0.27 U	0.26 U	0.27 U	0.95 U	0.9 U
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	0.28 U	0.27 U	0.26 U	0.27 U	3 U	3 U
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	NA	NA	NA	NA	0.42 U	0.4 U
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	0.28 U	0.27 U	0.26 U	0.27 U	3 U	3 U
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	0.28 UJ	0.27 UJ	0.26 UJ	0.27 UJ	1 U	1 U
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	NA	NA	NA	NA	0.1 U	0.1 U
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	NA	NA	NA	NA	0.1 U	0.1 U
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	0.1 U
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.3 U	0.2 U
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.3 U	0.3 U
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.17 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.3 U	0.3 U
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.031 J	0.16 U	0.16 U	0.16 U	0.3 U	0.3 U
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 UJ	0.16 U	0.16 UJ	0.16 UJ	NA	NA
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.3 U	0.3 U
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.3 U	0.3 U
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	NA	NA	NA	NA	0.3 U	0.2 U
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	NA	NA	NA	NA	0.4 U	0.4 U
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	0.1 U
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.3 U	0.3 U
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.079 U	0.049 J	0.074 U	0.075 U	0.1 U	0.1 U
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U	0.16 U	0.16 U	0.16 U	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.28 U	0.27 U	0.26 U	0.27 U	0.3 U	0.2 U
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.17 U	0.16 U	0.16 U	0.16 U	NA	NA
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.17 U	0.16 U	0.16 U	0.16 U	0.1 U	0.1 U

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-05 14.6 - 16.6 08/24/01	RFI-38-06 0.5 - 2.5 08/24/01	RFI-38-06 8.5 - 10.5 08/24/01	RFI-38-06 12.5 - 14.5 08/24/01	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	NA	NA	NA	NA	0.42 U	0.4 U
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.06 U	0.06 U
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	0.1 U
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.1 U	0.1 U
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.06 U	0.06 U
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.06 U	0.06 U
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	NA	NA	NA	NA	1 U	1 U
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.1 U	0.1 U
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.037 U	0.037 U	0.037 U	0.06 U	0.06 U
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	0.06 U	0.06 U
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.04 U	0.037 U	0.037 U	0.071	0.06 U	0.06 U
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.079 U	0.075 U	0.074 U	0.075 U	0.1 U	0.1 U
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	NA	NA
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.19 UJ	0.0432 J	0.18 U	0.18 UJ	0.33 U	0.33 U
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.18 UJ	0.18 U	0.18 UJ	0.33 U	0.33 U
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.19 UJ	0.18 UJ	0.18 U	0.18 UJ	0.33 U	0.33 U
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.18 UJ	0.18 U	0.18 UJ	0.33 U	0.33 U
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.038 U	0.035 U	0.035 U	0.035 U	0.33 U	0.33 U
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.138 J	0.18 UJ	0.18 U	0.326	0.33 U	0.33 U
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	NA	NA
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	NA	NA
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.19 U	0.0385 J	0.18 U	0.18 U	0.33 U	0.33 U
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.18 UJ	0.18 U	0.18 UJ	0.33 U	0.33 U
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.19 UJ	0.18 UJ	0.18 U	0.18 UJ	0.33 U	0.33 U
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.0664 J	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.19 UJ	0.18 UJ	0.18 U	0.18 UJ	0.33 U	0.33 U
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	NA	NA
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.076 U	0.072 U	0.071 U	0.07 U	0.33 U	0.33 U
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.19 U	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.76 U	0.72 UJ	0.71 U	0.7 U	0.33 U	0.33 U
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.0724 J	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.19 U	0.18 U	0.18 U	0.18 U	0.33 U	0.33 U
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.0652 J	0.18 UJ	0.18 U	0.18 U	0.33 U	0.33 U
PCB																		

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-05 14.6 - 16.6 08/24/01	RFI-38-06 0.5 - 2.5 08/24/01	RFI-38-06 8.5 - 10.5 08/24/01	RFI-38-06 12.5 - 14.5 08/24/01	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.04 U	0.038 U	0.037 U	0.037 U	0.33 U	0.33 U
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	0.04 U	0.038 U	0.037 U	0.037 U	NA	NA
Inorganic																		
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	0.25 U	0.24 U	0.23 U	0.27 J	0.5 U	0.5 U
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	4.4	4.7	1.7 U	3.6	0.85	0.82
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	16	24	5.4	5.5	10.8	10.8
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.19	0.28	0.1	0.072 J	0.2 U	0.2 U
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.13	0.11	0.071	0.15	0.2 U	0.2 U
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	6.7	9.5	4.6	3.9	1.45	1.48
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	3.3	4.9	1.9	2.2	2.3	1.55
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	9.9	6.2	4.6	6.1	1.66	2.56
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	6.8	12	4.7	4.8	3.71	4.03
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	140	160	74	94	110	128
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.08 U	0.0235 J	0.074 U	0.073 U	0.05 U	0.05 U
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	8.5	9.6	5.4	6	1.85	2.24
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.1 U	0.1	0.098	0.25	0.4 U	0.4 U
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.11 J	0.11 J	0.093 J	0.15 J	0.1 U	0.1 U
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.06 J	0.088 J	0.026 J	0.046 J	0.2 U	0.2 U
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	14	15	7.8	8.2	NA	NA
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	36	28	21	19	3.92	4.97

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12
VOC																
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.46 U	0.4 U	0.46 U	0.48 U [0.39 U]
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.46 U	0.4 U	0.46 U	0.48 U [0.39 U]
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.03 UM	0.02 UM	0.03 UM	0.03 UM [0.02 UM]
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	1.1 U	0.9 U	1.1 U	1.1 U [0.89 U]
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	4 U	3 U	4 U	4 U [3 U]
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	0.46 U	0.4 U	0.46 U	0.48 U [0.39 U]
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	4 U	3 U	4 U	4 U [3 U]
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	1 U	1 U	1 U	1 U [1 U]
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.3 U	0.2 U	0.3 U	0.3 U [0.2 U]
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	0.3 U	0.2 U	0.3 U	0.3 U [0.2 U]
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.4 U	0.3 U	0.4 U	0.4 U [0.3 U]
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.3 U	0.2 U	0.3 U	0.3 U [0.2 U]
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.46 U	0.4 U	0.46 U	0.48 U [0.39 U]
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	1 U	1 U	1 U	1 U [1 U]
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.07 U	0.06 U	0.07 U	0.07 U [0.06 U]
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.33 U	0.389	0.33 U	0.33 U [0.33 U]
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.344	0.33 U	0.33 U [0.33 U]
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	NA	NA	NA	NA
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.448	0.33 U	0.33 U [0.33 U]
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.33 U	0.578	0.33 U	0.33 U [0.33 U]
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	NA	NA	NA	NA
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.33 U	0.526	0.33 U	0.33 U [0.33 U]
PCB																

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U [0.33 U]
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA
Inorganic																
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	0.5 U	0.5 U	0.5 U	0.5 U [0.5 U]
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	0.99	1.73	0.9	0.44 [0.44]
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	11.5	76.9	11.5	6.18 [6.34]
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.2 U	0.3	0.2 U	0.2 U [0.2 U]
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.2 U	0.49	0.2 U	0.2 U [0.2 U]
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	1.89	4.03	1.23	0.8 [0.79]
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	2.75	3.65	1.81	0.66 [0.66]
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	3.08	29.9	1.75	0.9 [1.01]
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	7.56	63.4	3.35	1.69 [1.83]
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	122	207	146	75.3 [70.5]
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.05 U	0.076	0.05 U	0.05 U [0.05 U]
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	2.76	6.99	2.63	3.81 [3.55]
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.4 U	0.4 U	0.4 U	0.4 U [0.4 U]
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.1 U	0.1 U	0.1 U	0.1 U [0.1 U]
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	6.56	60.2	5.46	2.97 [3.3]

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12	RFI-38-12 0.7 - 1.4 10/12/12	RFI-BG-08 0 - 2 08/29/02
VOC																	
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.38 U	0.44 U	0.42 U	0.5 U	NA
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.38 U	0.44 U	0.42 U	0.5 U	NA
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.02 UM	0.03 UM	0.03 UM	0.03 UM	NA
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	0.87 U	1 U	0.94 U	1.1 U	NA
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	3 U	3 U	3 U	4 U	NA
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	0.38 U	0.44 U	0.42 U	0.5 U	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	3 U	3 U	3 U	4 U	NA
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	1 U	1 U	1 U	2 U	NA
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.2 U	0.3 U	0.3 U	0.3 U	NA
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	0.2 U	0.3 U	0.3 U	0.3 U	NA
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.3 U	0.4 U	0.4 U	0.5 U	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.3 U	0.3 U	0.3 U	0.4 U	NA
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.2 U	0.3 U	0.3 U	0.3 U	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12	RFI-38-12 0.7 - 1.4 10/12/12	RFI-BG-08 0 - 2 08/29/02
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.38 U	0.44 U	0.42 U	0.5 U	NA
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	1 U	1 U	1 U	2 U	NA
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.06 U	0.07 U	0.06 U	0.08 U	NA
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.1 U	0.1 U	0.1 U	0.2 U	NA
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
PCB																	

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12	RFI-38-12 0.7 - 1.4 10/12/12	RFI-BG-08 0 - 2 08/29/02
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	0.33 U	0.33 U	0.33 U	NA
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA
Inorganic																	
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	0.5 U	0.5 U	0.5 U	0.5 U	0.027 J
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	0.94	0.96	1	3.04	**8.5 J**
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	6.53	11.4	13.4	340	80 J
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.2 U	0.2 U	0.2 U	2.7	0.42
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.2 U	0.2 U	0.2 U	0.94	0.34 J
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	1	1.33	1.3	199	16 J
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	1.06	1.53	1.83	**70.1**	6.7 J
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	3.14	1.5	1.82	**127**	13 J
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	0.1 U	0.1 U	0.1 U	0.1 U	NA
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	3.16	3.37	3.16	133	30 J
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	52.7	171	187	**6,750**	**500**
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.05 U	0.05 U	0.05 U	0.05 U	0.0556 J
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	1.79	2.34	2.87	68.9	14 J
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.4 U	0.4 U	0.4 U	0.4 U	0.039 J
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.1 U	0.1 U	0.1 U	**1.08**	0.094 J
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.2 U	0.2 U	0.2 U	0.2 U	0.15 J
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	24 J
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	6.54	4.47	5.49	**518**	85 J

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0.6 - 1 10/11/12
VOC																	
1,1,1,2-Tetrachloroethane	mg/kg	440	440	- -	440	6.4	530,000	33	330	210	120	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,1,1-Trichloroethane	mg/kg	460	460	1.8	460	4	29,000,000	460	31,000	15,000	4,500	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6	240	0.7	68,000	23	34	34	34	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550	1.7	550	550	2,300,000,000	550	2,100,000	890,000	210,000	- -	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6	840	0.1	250,000	24	120	57	57	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,1-Dichloroethane	mg/kg	890	890	15	890	50	15,000,000	430	14,000	6,000	2,500	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,1-Dichloroethene	mg/kg	570	220	2.6	570	0.14	78,000	0.33	37	15	3.7	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.46 U	NA	0.49 U	NA	0.43 U
1,2,3-Trichloropropane	mg/kg	830	830	- -	830	2.4	8,800	7.5	12	11	11	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100	5.9	1,100	4.2	11,000,000	1,100	34,000	34,000	34,000	- -	0.46 U	NA	0.49 U	NA	0.43 U
1,2,4-Trimethylbenzene	mg/kg	110	110	0.57	110	2.1	36,000,000	110	600,000	600,000	25,000	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.4 U	NA	0.4 U	NA	0.3 U
1,2-Dibromoethane	mg/kg	890	0.5	0.11	0.43	0.02	18,000	3.6	9.8	5.8	5.8	- -	0.03 UM	NA	0.03 UM	NA	0.03 UM
1,2-Dichlorobenzene	mg/kg	210	210	0.28	210	14	44,000,000	210	55,000	46,000	46,000	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,2-Dichloroethane	mg/kg	1,200	380	7.2	420	0.1	150,000	11	74	33	21	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,2-Dichloropropane	mg/kg	550	320	4.6	550	0.1	120,000	7.4	120	51	30	- -	0.07 U	NA	0.07 U	NA	0.07 U
1,3,5-Trimethylbenzene	mg/kg	94	94	1.1	94	1.8	36,000,000	94	460,000	460,000	19,000	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170	0.48	88,000	48	110	94	94	- -	0.1 U	NA	0.1 U	NA	0.1 U
1,4-Dichlorobenzene	mg/kg	- -	140	0.36	1,900	1.7	570,000	100	340	260	260	- -	0.1 U	NA	0.1 U	NA	0.1 U
2-Butanone	mg/kg	27,000	27,000	44	27,000	760	29,000,000	27,000	36,000	35,000	35,000	- -	1.1 U	NA	1.1 U	NA	0.98 U
2-Hexanone	mg/kg	2,500	2,500	- -	2,500	58	1,200,000	1,800	1,500	1,300	1,300	- -	4 U	NA	4 U	NA	3 U
2-Methylnaphthalene	mg/kg	- -	5,500	4.2	26,000	170	290,000	4,900	1,800	1,800	1,800	- -	0.46 U	NA	0.49 U	NA	0.43 U
4-Methyl-2-pentanone	mg/kg	2,700	2,700	- -	2,700	100	60,000,000	2,700	70,000	53,000	53,000	- -	4 U	NA	4 U	NA	3 U
Acetone	mg/kg	110,000	110,000	34	73,000	42	170,000,000	110,000	200,000	160,000	160,000	- -	1 U	NA	1 U	NA	1 U
Acrylonitrile	mg/kg	8,300	280	0.1	74	0.22	58,000	35	31	17	17	- -	0.1 U	NA	0.1 U	NA	0.1 U
Benzene	mg/kg	400	220	4	400	0.1	470,000	8.4	230	99	45	- -	0.07 U	NA	0.07 U	NA	0.07 U
Bromobenzene	mg/kg	760	360	- -	760	1.5	240,000	580	540	540	540	- -	0.1 U	NA	0.1 U	NA	0.1 U
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	NA	0.1 U
Bromodichloromethane	mg/kg	1,500	280	- -	490	1.6	110,000	6.4	57	31	31	- -	0.1 U	NA	0.1 U	NA	0.1 U
Bromoform	mg/kg	870	870	- -	870	1.6	3,600,000	770	3,100	3,100	3,100	- -	0.1 U	NA	0.1 U	NA	0.1 U
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	1.6	140	57	13	- -	0.3 U	NA	0.3 U	NA	0.3 U
Carbon Disulfide	mg/kg	280	280	- -	280	46	21,000,000	140	19,000	8,000	1,600	- -	0.4 U	NA	0.4 U	NA	0.3 U
Carbon Tetrachloride	mg/kg	390	92	0.9	390	0.1	170,000	0.99	79	34	12	- -	0.07 U	NA	0.07 U	NA	0.07 U
Chlorobenzene	mg/kg	260	260	0.5	260	2	2,100,000	220	2,100	1,100	920	- -	0.07 U	NA	0.07 U	NA	0.07 U
Chloroethane	mg/kg	950	950	22	950	34	290,000,000	950	280,000	120,000	36,000	- -	0.4 U	NA	0.4 U	NA	0.3 U
Chloroform	mg/kg	1,500	1,500	7	1,500	1.6	1,600,000	38	790	340	150	- -	0.07 U	NA	0.07 U	NA	0.07 U
Chloromethane	mg/kg	1,100	1,100	- -	1,100	22	2,600,000	10	2,500	1,000	120	- -	0.4 U	NA	0.4 U	NA	0.3 U
cis-1,2-Dichloroethene	mg/kg	640	640	12	640	1.4	1,000,000	41	1,000	430	210	- -	0.07 U	NA	0.07 U	NA	0.07 U
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	- -	500	1.6	160,000	21	98	80	80	- -	0.1 U	NA	0.1 U	NA	0.1 U
Dibromomethane	mg/kg	2,000	2,000	- -	2,000	4.6	- -	- -	- -	- -	- -	- -	0.4 U	NA	0.4 U	NA	0.3 U
Dichlorodifluoromethane	mg/kg	1,000	1,000	- -	1,000	270	1,500,000,000	1,700	1,400,000	550,000	63,000	- -	0.4 U	NA	0.4 U	NA	0.3 U
Diethyl ether	mg/kg	7,400	7,400	- -	7,400	0.2	350,000,000	7,400	350,000	160,000	100,000	- -	0.3 U	NA	0.3 U	NA	0.3 U
Ethylbenzene	mg/kg	140	140	0.36	140	1.5	13,000,000	140	6,500	3,100	2,400	- -	0.07 U	NA	0.07 U	NA	0.07 U
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.4 U	NA	0.4 U	NA	0.4 U
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	NA	0.1 U
Isopropylbenzene	mg/kg	390	390	3.2	390	260	2,600,000	390	3,000	2,000	2,000	- -	0.4 U	NA	0.4 U	NA	0.3 U
m&p-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	NA	0.1 U
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900	140	5,900	0.8	88,000,000	5,900	89,000	41,000	30,000	- -	0.3 U	NA	0.3 U	NA	0.3 U
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300	30	2,300	0.1	8,300,000	240	4,000	1,700	700	- -	0.1 U	NA	0.1 U	NA	0.1 U

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0.6 - 1 10/11/12
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.46 U	NA	0.49 U	NA	0.43 U
n-Butylbenzene	mg/kg	10,000	120	- -	8,000	4.6	880,000	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
n-Propylbenzene	mg/kg	10,000	300	- -	8,000	4.6	590,000	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	NA	0.1 U
o-Xylene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.1 U	NA	0.1 U	NA	0.1 U
sec-Butylbenzene	mg/kg	10,000	88	- -	8,000	4.6	180,000	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
Styrene	mg/kg	520	270	2.1	520	2.7	6,900,000	520	4,200	3,300	3,300	- -	0.07 U	NA	0.07 U	NA	0.07 U
tert-Butylbenzene	mg/kg	10,000	180	- -	8,000	4.6	290,000	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
Tetrachloroethene	mg/kg	88	88	1.2	88	0.1	6,800,000	60	3,300	1,400	600	- -	0.07 U	NA	0.07 U	NA	0.07 U
Tetrahydrofuran	mg/kg	120,000	32,000	220	9,500	5.4	170,000,000	2,400	160,000	67,000	15,000	- -	1 U	NA	1 U	NA	1 U
Toluene	mg/kg	250	250	5.4	250	16	12,000,000	250	36,000	36,000	3,300	- -	0.1 U	NA	0.1 U	NA	0.1 U
trans-1,2-Dichloroethene	mg/kg	1,400	1,400	30	1,400	2	2,100,000	43	2,000	840	330	- -	0.07 U	NA	0.07 U	NA	0.07 U
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.07 U	NA	0.07 U	NA	0.07 U
Trichloroethene	mg/kg	500	440	4	500	0.1	2,300,000	37	1,100	440	260	- -	0.07 U	NA	0.07 U	NA	0.07 U
Trichlorofluoromethane	mg/kg	560	560	- -	560	150	1,700,000,000	560	140,000,000	140,000,000	110,000	- -	0.1 U	NA	0.1 U	NA	0.1 U
Atrazine	mg/kg	- -	110	0.15	330	0.06	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Benzo(a)pyrene	mg/kg	- -	- -	- -	8	- -	1,900	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Benzo(b)fluoranthene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Benzo(g,h,i)perylene	mg/kg	- -	- -	- -	7,000	- -	350,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Benzo(k)fluoranthene	mg/kg	- -	- -	- -	800	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1	58	0.17	12,000	44	13	13	13	- -	0.33 U	NA	0.33 U	NA	0.33 U
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	- -	- -	10,000	- -	890,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Butylbenzylphthalate	mg/kg	310	310	120	310	310	21,000,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Caprolactam	mg/kg	- -	1,000,000	- -	310,000	340	290,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Carbazole	mg/kg	- -	820	1.1	2,400	39	78,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Chrysene	mg/kg	- -	- -	- -	8,000	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Dibenzo(a,h)anthracene	mg/kg	- -	- -	- -	8	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Dibenzofuran	mg/kg	- -	- -	1.7	- -	- -	2,900	3,600	160	160	160	- -	0.33 U	NA	0.33 U	NA	0.33 U
Diethylphthalate	mg/kg	740	740	2.2	740	320	1,500,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Dimethylphthalate	mg/kg	790	790	- -	790	790	1,500,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Di-n-Butylphthalate	mg/kg	760	760	11	760	760	1,500,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Di-n-Octylphthalate	mg/kg	140,000	140,000	- -	20,000	140,000	14,000,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Fluoranthene	mg/kg	- -	730	5.5	130,000	730	4,100,000	1,000,000	880,000	880,000	890,000	- -	0.33 U	NA	0.33 U	NA	0.33 U
Fluorene	mg/kg	- -	890	5.3	87,000	890	4,100,000	1,000,000	150,000	150,000	150,000	- -	0.33 U	NA	0.33 U	NA	0.33 U
Hexachlorobenzene	mg/kg	- -	8.2	0.35	37	1.8	8,500	220	56	56	56	- -	0.33 U	NA	0.33 U	NA	0.33 U
Hexachlorobutadiene	mg/kg	350	350	0.091	350	72	180,000	350	460	460	460	- -	0.33 U	NA	0.33 U	NA	0.33 U
Hexachlorocyclopentadiene	mg/kg	720	720	- -	720	320	5,900	56	60	60	60	- -	0.33 U	NA	0.33 U	NA	0.33 U
Hexachloroethane	mg/kg	- -	110	1.8	730	1.2	100,000	79	1,400	1,400	660	- -	0.33 U	NA	0.33 U	NA	0.33 U
Indeno(1,2,3-cd)pyrene	mg/kg	- -	- -	- -	80	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Isophorone	mg/kg	2,400	2,400	26	2,400	62	8,200,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Methylphenols, Total	mg/kg	- -	16,000	1	36,000	20	2,900,000	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA
Naphthalene	mg/kg	- -	2,100	0.73	52,000	100	88,000	470	350	350	350	- -	0.33 U	NA	0.33 U	NA	0.33 U
Nitrobenzene	mg/kg	490	220	3.6	340	0.33	21,000	170	64	64	64	- -	0.33 U	NA	0.33 U	NA	0.33 U
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	- -	5.4	0.33	2,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
N-Nitrosodiphenylamine	mg/kg	- -	700	- -	7,800	22	2,800,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Pentachlorophenol	mg/kg	- -	4.3	26.5	320	0.022	130,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Phenanthrene	mg/kg	- -	1,100	2.1	5,200	160	2,900	5,100	190	190	190	- -	0.33 U	NA	0.33 U	NA	0.33 U
Phenol	mg/kg	12,000	12,000	9	12,000	260	18,000,000	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Pyrene	mg/kg	- -	480	- -	84,000	480	2,900,000	1,000,000	780,000	780,000	780,000	- -	0.33 U	NA	0.33 U	NA	0.33 U
PCB																	

Table 2B
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	NSVIA	NVSIC2	NVSIC5	NVSICI	SDBL	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0.6 - 1 10/11/12
Aroclor-1016	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Aroclor-1221	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Aroclor-1232	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Aroclor-1242	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Aroclor-1248	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Aroclor-1254	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Aroclor-1260	mg/kg	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.33 U	NA	0.33 U	NA	0.33 U
Total PCBs	mg/kg	- -	- -	- -	- -	- -	6,500	16,000	28,000	28,000	810	- -	NA	NA	NA	NA	NA
Inorganic																	
Antimony	mg/kg	- -	49,000	94	670	4.3	5,900	- -	- -	- -	- -	- -	0.5 U	0.013 J	0.5 U	0.042 J	0.5 U
Arsenic	mg/kg	- -	2,000	4.6	37	4.6	910	- -	- -	- -	- -	5.8	3.01	**6.5 J**	1.05	5.5 J	1.29
Barium	mg/kg	- -	1,000,000	858	130,000	1,300	150,000	- -	- -	- -	- -	75	35.1	60 J	89.6	150 J	23.1
Beryllium	mg/kg	- -	1,000,000	408	1,600	51	590	- -	- -	- -	- -	- -	0.32	0.47	0.64	0.89	0.2 U
Cadmium	mg/kg	- -	230,000	5.74	2,100	6	2,200	- -	- -	- -	- -	1.2	0.2 U	0.33 J	0.2 U	1.1	0.2 U
Chromium Total	mg/kg	- -	- -	4,960,000	- -	- -	- -	- -	- -	- -	- -	18	4.83	16 J	6.71	47 J	11.7
Cobalt	mg/kg	- -	48,000	2	9,000	2	5,900	- -	- -	- -	- -	6.8	**11.3**	6.4 J	**11.6**	3.8 J	**11.5**
Copper	mg/kg	- -	1,000,000	124	73,000	5,800	59,000	- -	- -	- -	- -	32	5.23	17 J	5.35	29 J	9
Cyanide (total)	mg/kg	- -	250	0.1	250	4	250	- -	- -	- -	- -	0.39	0.1 U	NA	0.1 U	NA	0.1 U
Lead	mg/kg	- -	- -	5,450	900	700	44,000	- -	- -	- -	- -	21	9.49	45 J	11.5	190 J	8.36
Manganese	mg/kg	- -	180,000	95.3	90,000	1	1,500	- -	- -	- -	- -	440	**481**	380	**537**	**2,100**	366
Mercury	mg/kg	- -	47	0.05	580	1.7	8,800	89	62	62	62	0.13	0.05 U	0.0761	0.05 U	0.0265 J	0.05 U
Nickel	mg/kg	- -	1,000,000	129	150,000	100	16,000	- -	- -	- -	- -	20	15.6	19 J	16.5	17 J	9.25
Selenium	mg/kg	- -	78,000	0.4	9,600	4	59,000	- -	- -	- -	- -	0.41	0.4 U	0.051 J	0.4 U	0.12 J	0.4 U
Silver	mg/kg	- -	200,000	0.1	9,000	13	2,900	- -	- -	- -	- -	1	0.1 U	0.086 J	0.1 U	0.26 J	0.1 U
Thallium	mg/kg	- -	15,000	4.2	130	2.3	5,900	- -	- -	- -	- -	- -	0.2 U	0.16 J	0.2 U	0.1 J	0.2 U
Vanadium	mg/kg	- -	1,000,000	190	5,500	990	- -	- -	- -	- -	- -	- -	NA	22 J	NA	14 J	NA
Zinc	mg/kg	- -	1,000,000	280	630,000	5,000	- -	- -	- -	- -	- -	47	12.3	87 J	18.1	**720 J**	14.9

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-36-02 1 - 3 09/17/01	RFI-36-02 7 - 9 09/17/01	RFI-36-02 9 - 11 09/17/01	RFI-36-02 13 - 15 09/17/01	RFI-38-01 0.5 - 2.5 07/23/01	RFI-38-01 8.5 - 10.5 07/23/01	RFI-38-01 18.5 - 20.5 07/23/01	RFI-38-03 1 - 3 07/18/01	RFI-38-03 5 - 7 07/18/01	RFI-38-03 9 - 11 07/18/01	RFI-38-03 17 - 19 07/18/01
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 J [<0.16]	<0.16	<0.17
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	**<0.16**	**<0.19**	**<0.16 [<0.15]**	**<0.16**	**<0.16**	**<0.16**	**<0.17 [<0.17]**	**<0.16**	**<0.16 [<0.16]**	**<0.16**	**<0.17**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	<0.27 J	<0.31 J	<0.26 J [<0.25 J]	<0.27 J	0.031 J	<0.27	<0.28 [<0.28]	<0.26	<0.26 [<0.27]	<0.26	<0.28
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	<0.27	<0.31	<0.26 [<0.25]	<0.27	<0.27	<0.27	<0.28 [<0.28]	<0.26	<0.26 [<0.27]	<0.26	<0.28
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	<0.27	<0.31	<0.26 [<0.25]	<0.27	<0.27	<0.27	<0.28 [<0.28]	<0.26	<0.26 [<0.27]	<0.26	<0.28
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	<0.27 J	<0.31 J	<0.26 J [<0.25 J]	<0.27 J	<0.36 J	<0.27 J	<0.38 J [<0.34 J]	<0.26	<0.26 [<0.27]	<0.26	<0.28
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	0.069 J [<0.16]	<0.16	<0.17
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	<0.27	<0.31	<0.26 [<0.25]	<0.27	<0.27	<0.27	<0.28 [<0.28]	<0.26	<0.26 [<0.27]	<0.26	<0.28
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.19	<0.16 [<0.15]	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.16	<0.16 [<0.16]	<0.16	<0.17
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	0.033 J	0.036 J	0.034 J [0.042 J]	0.033 J	**<0.16**	**<0.16**	**<0.17 [<0.17]**	**<0.16**	**<0.16 [<0.16]**	0.094 J	0.05 J
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-36-02 1 - 3 09/17/01	RFI-36-02 7 - 9 09/17/01	RFI-36-02 9 - 11 09/17/01	RFI-36-02 13 - 15 09/17/01	RFI-38-01 0.5 - 2.5 07/23/01	RFI-38-01 8.5 - 10.5 07/23/01	RFI-38-01 18.5 - 20.5 07/23/01	RFI-38-03 1 - 3 07/18/01	RFI-38-03 5 - 7 07/18/01	RFI-38-03 9 - 11 07/18/01	RFI-38-03 17 - 19 07/18/01
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	<0.037	<0.044	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	<0.075	<0.087	<0.074 [<0.071]	<0.074	<0.076	<0.075	<0.079 [<0.079]	<0.072	<0.074 [<0.075]	<0.074	<0.077
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	<0.037	**<0.044**	<0.037 [<0.036]	<0.037	<0.038	<0.037	<0.039 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
SVOC																			
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.22	<0.18	<0.18	0.0469 J	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73 J	<0.85 J	<0.7 J	<0.72 J	<0.74	<0.71 J	<0.76 J [<0.77 J]	<0.7	<0.71 [<0.7]	<0.71	<0.74
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	**<0.73**	**<0.85**	**<0.7**	**<0.72**	**<0.74**	**<0.71**	**<0.76 [<0.77]**	**<0.7**	**<0.71 [<0.7]**	**<0.71**	**<0.74**
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	<0.19	<0.22	<0.18	<0.18	0.251 J	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18 J	<0.19 J [<0.2 J]	<0.18	<0.18 [<0.18]	<0.18	<0.19
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73	<0.85	<0.7	<0.72	<0.74	<0.71	<0.76 [<0.77]	<0.7	<0.71 [<0.7]	<0.71	<0.74
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	<0.37 J	<0.43 J	<0.36 J	<0.36 J	<0.37 J	<0.36 J	<0.39 J [<0.39 J]	<0.35 J	<0.36 J [<0.36 J]	<0.36 J	<0.38 J
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	<0.73 J	<0.85 J	<0.7 J	<0.72	<0.74	<0.71	<0.76 [<0.77]	<0.7	<0.71 [<0.7]	<0.71	<0.74
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73	<0.85	<0.7	<0.72	<0.74	<0.71	<0.76 [<0.77]	<0.7	<0.71 [<0.7]	<0.71	<0.74
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73	<0.85	<0.7	<0.72	<0.74	<0.71	<0.76 [<0.77]	<0.7	<0.71 [<0.7]	<0.71	<0.74
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	<0.19	<0.22	R	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73	<0.85	<0.7	<0.72	<0.74	<0.71	<0.76 [<0.77]	<0.7	<0.71 [<0.7]	<0.71	<0.74
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	R	R	<0.7	R	<0.74 J	<0.71 J	<0.76 J [<0.77 J]	<0.7 J	<0.71 J [<0.7 J]	<0.71 J	<0.74 J
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73	<0.85	<0.7	<0.72	<0.74	<0.71 J	<0.76 J [<0.77 J]	<0.7	<0.71 [<0.7]	<0.71	<0.74
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.73	<0.85	<0.7	<0.72	<0.74	<0.71	<0.76 [<0.77]	<0.7	<0.71 [<0.7]	<0.71	<0.74
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	<0.19	<0.22	<0.18	<0.18	0.155 J	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	<0.19	<0.22	<0.18	<0.18	0.198	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	**<0.19**	**<0.22**	**<0.18**	**<0.18**	**<0.19**	**<0.18**	**<0.19 [<0.2]**	**<0.18**	**<0.18 [<0.18]**	**<0.18**	**<0.19**
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19 J	<0.22	<0.18	<0.18	<0.19 J	<0.18 J	<0.19 J [<0.2 J]	<0.18 J	<0.18 J [<0.18 J]	<0.18 J	<0.19 J
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.737	0.0459 J	<0.19 [<0.2]	<0.18	0.0759 J [<0.18]	<0.18	<0.19
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.599	<0.18	<0.19 [<0.2]	<0.18	0.0931 J [<0.18]	<0.18	<0.19
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.591	<0.18	<0.19 [<0.2]	<0.18	0.079 J [<0.18]	<0.18	<0.19
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.362 J	<0.18	<0.19 [<0.2]	<0.18	0.0495 J [<0.18]	<0.18	<0.19
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.608	<0.18	<0.19 [<0.2]	<0.18	0.0776 J [<0.18]	<0.18	<0.19
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	<0.036	<0.042	<0.035	<0.035	<0.036	<0.035	<0.038 [<0.038]	<0.034	<0.035 [<0.035]	<0.035	<0.036
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	0.0959 J
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	0.0508 J	<0.22 J	<0.18 J	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	0.119 J	<0.19
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18 J	<0.19 J [<0.2 J]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	<0.19	<0.22	<0.18	<0.18	0.0564 J	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.81	0.0505 J	<0.19 [<0.2]	<0.18	0.0825 J [<0.18]	<0.18	<0.19
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	<0.19	<0.22	<0.18	<0.18	0.175 J	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [0.0661 J]	0.126 J	0.15 J
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-36-02 1 - 3 09/17/01	RFI-36-02 7 - 9 09/17/01	RFI-36-02 9 - 11 09/17/01	RFI-36-02 13 - 15 09/17/01	RFI-38-01 0.5 - 2.5 07/23/01	RFI-38-01 8.5 - 10.5 07/23/01	RFI-38-01 18.5 - 20.5 07/23/01	RFI-38-03 1 - 3 07/18/01	RFI-38-03 5 - 7 07/18/01	RFI-38-03 9 - 11 07/18/01	RFI-38-03 17 - 19 07/18/01
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [0.0486 J]	<0.18	<0.19
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	<0.19	<0.22	<0.18	<0.18	1.33	0.0978 J	<0.19 [<0.2]	<0.18	0.0984 J [<0.18]	0.0444 J	<0.19
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	<0.19	<0.22	<0.18	<0.18	0.092 J	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	**<0.19**	**<0.22**	**<0.18**	**<0.18**	**<0.19**	**<0.18**	**<0.19 [<0.2]**	**<0.18**	**<0.18 [<0.18]**	**<0.18**	**<0.19**
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	0.343	<0.18	<0.19 [<0.2]	<0.18	0.0492 J [<0.18]	<0.18	<0.19
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	<0.19	<0.22	<0.18	<0.18	0.201	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	<0.073	<0.085	<0.07	<0.072	<0.074	<0.071	<0.076 [<0.077]	<0.07	<0.071 [<0.07]	<0.071	<0.074
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	**<0.73**	**<0.85**	**<0.7**	**<0.72**	**<0.74**	**<0.71**	**<0.76 [<0.77]**	**<0.7**	**<0.71 [<0.7]**	**<0.71**	**<0.74**
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	<0.19	<0.22	<0.18	<0.18	1.13	0.129 J	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	0.0373 J	<0.19
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	<0.19	<0.22	<0.18	<0.18	<0.19	<0.18	<0.19 [<0.2]	<0.18	<0.18 [<0.18]	<0.18	<0.19
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	<0.19 J	<0.22 J	<0.18 J	<0.18	1.15	0.0823 J	<0.19 [<0.2]	<0.18	0.124 J [<0.18]	<0.18	<0.19
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	<0.038	<0.044	<0.037	<0.037	<0.039	<0.037	<0.04 [<0.04]	<0.036	<0.037 [<0.037]	<0.037	<0.039
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	0.71 J	0.18 J	0.11 J	0.11 J	<0.28 J	<0.19 J	<0.22 J [<0.2 J]	R	R [R]	R	R
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	3.6 J	4.2 J	3.1 J	4 J	**6.4**	3.3	1.9 [2.1]	3.6	4.1 [3.6]	**4.7**	2.4
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	12 J	16 J	8.5 J	7.6 J	38 J	8.6 J	4.4 J [4.7 J]	15	16 [17]	27	8.3
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	0.091 J	0.12 J	0.058 J	0.061 J	0.66	0.15	0.062 J [0.082]	0.13	0.15 [0.14]	0.26	0.12
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	0.073 J	0.1 J	0.065 J	0.1 J	0.76	0.069	0.093 [0.085]	0.096	0.12 [0.097]	0.11	0.12
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	5 J	7.6 J	4.5 J	4.2 J	**28 J**	5.8 J	3.3 J [3 J]	5.3	6.2 [5.8]	12	4.7
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	**2.5 J**	**3.1 J**	**2.4 J**	**2.3 J**	**4.9**	**2.6**	1.6 [1.7]	**2.5**	**2.6 [2.5]**	**3.6**	1.4
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	6.5 J	7.9 J	5.6 J	5.8 J	19 J	5.6 J	3 J [3.3 J]	5.8	7.3 [6.8]	11	5
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	**<0.2 J**	**<0.2 J**	**<0.2 J**	**<0.2 J**	R	R	R [R]	**<0.2**	0.026 J [0.01 J]	0.041 J	0.033 J
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	5 J	6.3 J	4.1 J	5.1 J	20 J	5 J	3.1 J [3.1 J]	4.4	6.7 [6.3]	9.8	3.8
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**120 J**	**180 J**	**110 J**	**120 J**	**620 J**	**110 J**	**99 J [100 J]**	**120 J**	**170 J [120 J]**	**200 J**	**65 J**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	**<0.075**	**<0.083**	**<0.073**	**<0.073**	**0.0543 J**	**<0.074**	**<0.08 [<0.079]**	0.0233 J	0.0267 J [0.0274 J]	0.0287 J	**<0.077**
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	6.8 J	8.4 J	5.8 J	5.6 J	15	5.7	5 [5.1]	6.1	6.9 [6.2]	10	5.1
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	0.15 J	0.15 J	0.064 J	0.061 J	**<0.54**	<0.076	<0.15 [<0.08]	0.33 J	0.34 [0.21]	0.39 J	0.38
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	**0.11 J**	**0.14 J**	0.051 J	0.048 J	0.086 J	0.025 J	0.024 J [0.051 J]	0.062 J	0.028 J [0.036 J]	0.046 J	0.02 J
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	0.07 J	0.075 J	0.045 J	0.058 J	0.21 J	0.042 J	0.063 J [0.054 J]	0.055 J	0.066 J [0.052 J]	0.1 J	0.044 J
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	8.6 J	10 J	7.8 J	7.2 J	23	9.8	5.2 [5.2]	11	11 [9.3]	14	9
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	23 J	28 J	21 J	23 J	**55 J**	19 J	16 J [16 J]	23	27 [25]	31	22
Miscellaneous																			
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	91.8	79	95.3	93.4	90.9	94.3	87.8 [86.9]	96.2	94.8 [95.2]	93.8	90.6

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-04 0.2 - 2.2 08/21/01	RFI-38-04 8.2 - 10.2 08/21/01	RFI-38-04 16.2 - 18.2 08/21/01	RFI-38-05 0.6 - 2.6 08/24/01	RFI-38-05 8.6 - 10.6 08/24/01	RFI-38-05 14.6 - 16.6 08/24/01	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12
VOC																				
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	<0.16	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.17	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	<0.16	<0.16	0.031 J	<0.16	<0.17 [<0.17]	<0.17	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.17	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	**<0.16**	**<0.16**	**<0.16**	**<0.16**	**<0.17 [<0.17]**	**<0.17**	**<0.03 M**	<0.02 M	**<0.03 M**	<0.02 M	**<0.03 M**	**<0.03 M [<0.02 M]**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	<0.27 J	<0.27 J	<0.26 J	<0.27	<0.28 [<0.28]	<0.28	<0.95	<0.9	<1.1	<0.9	<1.1	<1.1 [<0.89]
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	<0.27	<0.27	<0.26	<0.27	<0.28 [<0.28]	<0.28	<3	<3	<4	<3	<4	<4 [<3]
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	<0.27	<0.27	<0.26	<0.27	<0.28 [<0.28]	<0.28	<3	<3	<4	<3	<4	<4 [<3]
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	<0.27 J	<0.27 J	<0.26 J	<0.27 J	<0.28 J [<0.28 J]	<0.28 J	<1	<1	<1	<1	<1	<1 [<1]
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	<0.16 J	<0.16 J	<0.16 J	<0.16	<0.17 [<0.17]	<0.17	<0.3	<0.2	<0.3	<0.2	<0.3	<0.3 [<0.2]
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	<0.16	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.17	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	<0.16	<0.16	<0.16	<0.16	<0.17 [<0.17 J]	<0.17 J	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	<0.16 J	<0.16 J	<0.16 J	<0.16 J	<0.17 J [<0.17]	0.031 J	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.16	<0.16	<0.16	<0.17 [<0.17 J]	<0.17 J	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	NA	NA	NA	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	NA	NA	NA	**<0.3**	<0.2	**<0.3**	<0.2	**<0.3**	**<0.3 [<0.2]**
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	<0.038	<0.038	<0.037	0.18	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 [<0.4]
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	<0.16	<0.16	<0.16	0.035 J	<0.17 [<0.17]	<0.17	<0.3	<0.3	<0.4	<0.3	<0.4	<0.4 [<0.3]
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	<0.077	<0.076	<0.074	0.12	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.16	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.17	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	<0.27	<0.27	<0.26	<0.27	<0.28 [<0.28]	<0.28	<0.3	<0.2	<0.3	<0.2	<0.3	<0.3 [<0.2]
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	0.029 J	<0.16	<0.16	<0.16	<0.17 [<0.17]	<0.17	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	**<0.16**	**<0.16**	**<0.16**	**<0.16**	**<0.17 [<0.17]**	**<0.17**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	<0.42	<0.4	<0.46	<0.4	<0.46	<0.48 [<0.39]
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	NA	NA	NA	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	NA	NA	NA	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	NA	NA	NA	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-04 0.2 - 2.2 08/21/01	RFI-38-04 8.2 - 10.2 08/21/01	RFI-38-04 16.2 - 18.2 08/21/01	RFI-38-05 0.6 - 2.6 08/24/01	RFI-38-05 8.6 - 10.6 08/24/01	RFI-38-05 14.6 - 16.6 08/24/01	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	<1	<1	<1	<1	<1	<1 [<1]
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	<0.038	<0.038	<0.037	0.031 J	<0.04 [<0.04]	<0.04	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	<0.06	<0.06	<0.07	<0.06	<0.07	<0.07 [<0.06]
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	<0.077	<0.076	<0.074	<0.076	<0.079 [<0.08]	<0.079	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	<0.038	<0.038	<0.037	<0.038	<0.04 [<0.04]	<0.04	**<0.06**	**<0.06**	**<0.07**	**<0.06**	**<0.07**	**<0.07 [<0.06]**
SVOC																				
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72 J	<0.75 [<0.75]	<0.76	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	**<0.74**	**<0.71**	**<0.7**	**<0.72**	**<0.75 [<0.75]**	**<0.76**	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	<0.38 J	<0.36 J	<0.35 J	<0.36	<0.38 [<0.38]	<0.39	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<2	<2	<2	<2	<2	<2 [<2]
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28 [<0.28]
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.74	<0.71	<0.7	<0.72	<0.75 [<0.75]	<0.76	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83 [<0.83]
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	<0.19	<0.18	<0.18	0.055 J	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	0.108 J	<0.18	<0.18	0.218	0.0457 J [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	**<0.19**	**<0.18 J**	**<0.18 J**	**<0.18**	**<0.19 [<0.19]**	**<0.19**	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.18 J	<0.18 J	<0.18	<0.19 [<0.19]	<0.19	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	0.598	<0.18	<0.18	0.439	0.0538 J [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	0.745 J	<0.18	<0.18	0.305	0.0505 J [<0.19]	<0.19 J	<0.33	<0.33	<0.33	0.389	<0.33	<0.33 [<0.33]
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	0.869 J	<0.18	<0.18	0.585	0.0449 J [<0.19 J]	<0.19 J	<0.33	<0.33	<0.33	0.344	<0.33	<0.33 [<0.33]
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	0.513 J	<0.18	<0.18	<0.18	<0.19 J [<0.19 J]	<0.19 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	0.843 J	<0.18	<0.18	0.331	0.0557 J [<0.19 J]	<0.19 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	<0.037	<0.035	<0.034	<0.035	<0.037 [<0.037]	<0.038	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	<0.19	<0.18	<0.18	<0.18	0.0672 J [0.508 J]	0.138 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	<0.19	<0.18 J	<0.18 J	<0.18	<0.19 [<0.19]	<0.19	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	0.107 J	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	0.838	<0.18	<0.18	0.489	0.0583 J [<0.19]	<0.19	<0.33	<0.33	<0.33	0.448	<0.33	<0.33 [<0.33]
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	<0.19 J	<0.18	<0.18	<0.18	<0.19 J [<0.19 J]	<0.19 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	<0.19	<0.18	<0.18	0.0522 J	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-04 0.2 - 2.2 08/21/01	RFI-38-04 8.2 - 10.2 08/21/01	RFI-38-04 16.2 - 18.2 08/21/01	RFI-38-05 0.6 - 2.6 08/24/01	RFI-38-05 8.6 - 10.6 08/24/01	RFI-38-05 14.6 - 16.6 08/24/01	RFI-38-07 0.8 - 2 10/11/12	RFI-38-07 5 - 7 10/11/12	RFI-38-08 0.7 - 2 10/11/12	RFI-38-08 3 - 4 10/11/12	RFI-38-09 0.4 - 1.1 10/11/12	RFI-38-10 0.9 - 2 10/12/12
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	<0.19 J	<0.18	<0.18	<0.18	<0.19 J [<0.19 J]	<0.19 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	1.33	<0.18	<0.18	0.895	0.143 J [0.0475 J]	0.0664 J	<0.33	<0.33	<0.33	0.578	<0.33	<0.33 [<0.33]
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	<0.19	<0.18	<0.18	0.0682 J	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	**<0.19**	**<0.18**	**<0.18**	**<0.18**	**<0.19 [<0.19]**	**<0.19**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	0.489 J	<0.18	<0.18	0.12 J	<0.19 J [<0.19 J]	<0.19 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	<0.074	<0.071	<0.07	<0.072	<0.075 [<0.075]	<0.076	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	**<0.74**	**<0.71**	**<0.7**	**<0.72**	**<0.75 [<0.75]**	**<0.76**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33**	**<0.33 [<0.33]**
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	0.755	<0.18	<0.18	0.521	0.136 J [0.0624 J]	0.0724 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	<0.19	<0.18	<0.18	<0.18	<0.19 [<0.19]	<0.19	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	1.91	<0.18	<0.18	1.33	0.16 J [0.0523 J]	0.0652 J	<0.33	<0.33	<0.33	0.526	<0.33	<0.33 [<0.33]
PCB																				
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.039	<0.037	<0.036	<0.038	<0.039 [<0.039]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.039	<0.037	<0.036	<0.038	<0.039 [<0.039]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.039	<0.037	<0.036	<0.038	<0.039 [<0.039]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.039	<0.037	<0.036	<0.038	<0.039 [<0.039]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.039	<0.037	<0.036	<0.038	<0.039 [0.079]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.039	<0.037	<0.036	<0.038	<0.039 [<0.039]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	0.019 J	<0.037	<0.036	<0.038	<0.039 [<0.039]	<0.04	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33 [<0.33]
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	0.019 J	<0.037	<0.036	<0.038	<0.039 [0.079]	<0.04	NA	NA	NA	NA	NA	NA
TPH																				
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																				
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	<0.24 J	<0.27 J	<0.22 J	<0.25	<0.25 [<0.24]	<0.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 [<0.5]
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	4.5	3.7	2.7	**4.8**	3.9 [<3.5]	4.4	0.85	0.82	0.99	1.73	0.9	0.44 [0.44]
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	16	5.6	7.6	62	12 [11]	16	10.8	10.8	11.5	**76.9**	11.5	6.18 [6.34]
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	0.17	0.078 J	0.067 J	0.6	0.15 [0.15]	0.19	<0.2	<0.2	<0.2	0.3	<0.2	<0.2 [<0.2]
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	0.29	0.078	0.064	0.29	0.09 [0.081]	0.13	<0.2	<0.2	<0.2	0.49	<0.2	<0.2 [<0.2]
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	8.6	3.9	4.9	**27**	5.7 [5]	6.7	1.45	1.48	1.89	4.03	1.23	0.8 [0.79]
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	**3.2**	**2.1**	2	**6**	**3 [2.5]**	**3.3**	**2.3**	1.55	**2.75**	**3.65**	1.81	0.66 [0.66]
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	9.2	<5	<5.3	24	5.8 [4.5]	9.9	1.66	2.56	3.08	29.9	1.75	0.9 [1.01]
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	**0.12 J**	**<0.2**	**<0.2**	**<0.2**	**<0.2 [<0.2]**	**<0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	13 J	3.9 J	4 J	**24**	5.5 [4.9]	6.8	3.71	4.03	7.56	**63.4**	3.35	1.69 [1.83]
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**280**	**120 J**	**100 J**	**620**	**100 [100]**	**140**	**110**	**128**	**122**	**207**	**146**	**75.3 [70.5]**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	**<0.078**	**<0.073**	**<0.072**	0.0266 J	**<0.078 [<0.079]**	**<0.08**	<0.05	<0.05	<0.05	**0.076**	<0.05	<0.05 [<0.05]
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	16	5.4	5.6	18	6.9 [6.1]	8.5	1.85	2.24	2.76	6.99	2.63	3.81 [3.55]
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	0.21	0.21 J	0.27 J	0.12	0.06 J [<0.095]	<0.1	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 [<0.4]
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	**0.14 J**	**0.34**	0.074 J	**0.25**	**0.13 J [0.091 J]**	**0.11 J**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 [<0.1]
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	0.073 J	0.04 J	0.034 J	0.16 J	0.066 J [0.062 J]	0.06 J	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2 [<0.2]
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	12	7.2	8.2	20	11 [9.4]	14	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	33	21	18	**63**	27 [21]	36	3.92	4.97	6.56	**60.2**	5.46	2.97 [3.3]
Miscellaneous																				
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	902,000	943,000	959,000	932,000	897,000 [891,000]	878,000	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	88	92	88	90	89	80 [90]

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12	RFI-38-12 0 - 2 03/21/13	RFI-38-12 0.7 - 1.4 10/12/12	RFI-38-12 3 - 5 03/21/13	RFI-38-12-1 0 - 2 03/21/13	RFI-38-12-1 3 - 5 03/21/13	RFI-38-12-2 0 - 2 03/21/13	RFI-38-12-2 3 - 5 03/21/13	RFI-38-12-4 0 - 2 03/21/13	RFI-38-12-4 3 - 5 03/21/13
VOC																				
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.38	<0.44	<0.42	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	<0.38	<0.44	<0.42	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	<0.02 M	**<0.03 M**	**<0.03 M**	NA	**<0.03 M**	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	<0.87	<1	<0.94	NA	<1.1	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	<3	<3	<3	NA	<4	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	<0.38	<0.44	<0.42	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	<3	<3	<3	NA	<4	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	<1	<1	<1	NA	<2	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	<0.1	<0.1	<0.1	NA	**<0.2**	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	<0.2	<0.3	<0.3	NA	<0.3	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	<0.2	**<0.3**	**<0.3**	NA	**<0.3**	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	<0.3	<0.4	<0.4	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	<0.3	<0.3	<0.3	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	<0.2	<0.3	<0.3	NA	<0.3	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	<0.1	<0.1	<0.1	NA	**<0.2**	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	<0.38	<0.44	<0.42	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12	RFI-38-12 0 - 2 03/21/13	RFI-38-12 0.7 - 1.4 10/12/12	RFI-38-12 3 - 5 03/21/13	RFI-38-12-1 0 - 2 03/21/13	RFI-38-12-1 3 - 5 03/21/13	RFI-38-12-2 0 - 2 03/21/13	RFI-38-12-2 3 - 5 03/21/13	RFI-38-12-4 0 - 2 03/21/13	RFI-38-12-4 3 - 5 03/21/13
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	<1	<1	<1	NA	<2	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	<0.06	<0.07	<0.06	NA	<0.08	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	<0.1	<0.1	<0.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	**<0.06**	**<0.07**	**<0.06**	NA	**<0.08**	NA	NA	NA	NA	NA	NA	NA
SVOC																				
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	**<0.33**	**<0.33**	**<0.33**	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	NA	<0.83	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	NA	<0.83	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	<2	<2	<2	NA	<2	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	NA	<0.83	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	NA	<0.83	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	<0.28	<0.28	<0.28	NA	<0.28	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	NA	<0.83	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.83	<0.83	<0.83	NA	<0.83	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	**<0.33**	**<0.33**	**<0.33**	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-10 5 - 7 10/12/12	RFI-38-11 0.5 - 2 10/11/12	RFI-38-11 3.5 - 4.5 10/11/12	RFI-38-12 0 - 2 03/21/13	RFI-38-12 0.7 - 1.4 10/12/12	RFI-38-12 3 - 5 03/21/13	RFI-38-12-1 0 - 2 03/21/13	RFI-38-12-1 3 - 5 03/21/13	RFI-38-12-2 0 - 2 03/21/13	RFI-38-12-2 3 - 5 03/21/13	RFI-38-12-4 0 - 2 03/21/13	RFI-38-12-4 3 - 5 03/21/13
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	**<0.33**	**<0.33**	**<0.33**	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	**<0.33**	**<0.33**	**<0.33**	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
PCB																				
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	<0.33	<0.33	<0.33	NA	<0.33	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																				
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																				
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	<0.5	<0.5	<0.5	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	0.94	0.96	1	NA	3.04	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	6.53	11.4	13.4	NA	**340**	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	<0.2	<0.2	<0.2	NA	2.7	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	<0.2	<0.2	<0.2	NA	0.94	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	1	1.33	1.3	NA	**199**	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	1.06	1.53	1.83	NA	**70.1**	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	3.14	1.5	1.82	NA	**127**	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	<0.1	<0.1	<0.1	NA	<0.1	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	3.16	3.37	3.16	NA	**133**	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**52.7**	**171**	**187**	**491**	**6,750**	**338**	**1,790**	**63.7**	**2,200**	**115**	**3,110**	**1,180**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	<0.05	<0.05	<0.05	NA	<0.05	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	1.79	2.34	2.87	NA	**68.9**	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	<0.4	<0.4	<0.4	NA	<0.4	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	<0.1	<0.1	<0.1	NA	**1.08**	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	<0.2	<0.2	<0.2	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	6.54	4.47	5.49	NA	**518**	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																				
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	92	87	87	93	91	86	84	86	88	88	87	93

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-5 0 - 2 03/21/13	RFI-38-12-5 3 - 5 03/21/13	RFI-38-12-6 0 - 2 03/21/13	RFI-38-12-6 3 - 5 03/21/13	RFI-38-12-7 0 - 2 03/21/13	RFI-38-12-7 3 - 5 03/21/13	RFI-38-12-8 0 - 2 03/21/13	RFI-38-12-8 3 - 5 03/21/13	RFI-38-12-9 0 - 2 03/21/13	RFI-38-12-9 3 - 5 03/21/13	RFI-38-12-10 0 - 2 05/09/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-5 0 - 2 03/21/13	RFI-38-12-5 3 - 5 03/21/13	RFI-38-12-6 0 - 2 03/21/13	RFI-38-12-6 3 - 5 03/21/13	RFI-38-12-7 0 - 2 03/21/13	RFI-38-12-7 3 - 5 03/21/13	RFI-38-12-8 0 - 2 03/21/13	RFI-38-12-8 3 - 5 03/21/13	RFI-38-12-9 0 - 2 03/21/13	RFI-38-12-9 3 - 5 03/21/13	RFI-38-12-10 0 - 2 05/09/13
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-5 0 - 2 03/21/13	RFI-38-12-5 3 - 5 03/21/13	RFI-38-12-6 0 - 2 03/21/13	RFI-38-12-6 3 - 5 03/21/13	RFI-38-12-7 0 - 2 03/21/13	RFI-38-12-7 3 - 5 03/21/13	RFI-38-12-8 0 - 2 03/21/13	RFI-38-12-8 3 - 5 03/21/13	RFI-38-12-9 0 - 2 03/21/13	RFI-38-12-9 3 - 5 03/21/13	RFI-38-12-10 0 - 2 05/09/13
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**4,440**	**210**	**339**	**47.9**	**177**	**228**	**141**	**94.2**	**461**	**34.9**	**1,090**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	83	85	84	83	90	87	90	85	90	95	90

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-11 1 - 2 05/09/13	RFI-38-12-12 0 - 2 05/09/13	RFI-38-12-13 0 - 2 06/05/13	RFI-38-12-14 0 - 2 05/09/13	RFI-38-12-15 0 - 2 05/09/13	RFI-38-12-16 1 - 2 05/10/13	RFI-38-12-17 1 - 2 05/09/13	RFI-38-12-19 0 - 2 06/05/13	RFI-38-12-20 0 - 2 05/28/13	RFI-38-12-21 0 - 2 06/05/13
VOC																		
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-11 1 - 2 05/09/13	RFI-38-12-12 0 - 2 05/09/13	RFI-38-12-13 0 - 2 06/05/13	RFI-38-12-14 0 - 2 05/09/13	RFI-38-12-15 0 - 2 05/09/13	RFI-38-12-16 1 - 2 05/10/13	RFI-38-12-17 1 - 2 05/09/13	RFI-38-12-19 0 - 2 06/05/13	RFI-38-12-20 0 - 2 05/28/13	RFI-38-12-21 0 - 2 06/05/13
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOC																		
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-11 1 - 2 05/09/13	RFI-38-12-12 0 - 2 05/09/13	RFI-38-12-13 0 - 2 06/05/13	RFI-38-12-14 0 - 2 05/09/13	RFI-38-12-15 0 - 2 05/09/13	RFI-38-12-16 1 - 2 05/10/13	RFI-38-12-17 1 - 2 05/09/13	RFI-38-12-19 0 - 2 06/05/13	RFI-38-12-20 0 - 2 05/28/13	RFI-38-12-21 0 - 2 06/05/13
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																		
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																		
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**210**	**1,980**	**170**	**466**	**355**	**718**	**464**	**431**	**604**	**386**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	85	92	87	89	86	90	90	89	90	89

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-22 1 - 2 10/30/13	RFI-38-12-23 1.2 - 2 10/30/13	RFI-38-12-24 1 - 2 10/30/13	RFI-38-12-25 0.8 - 2 10/30/13	RFI-38-12-26 0.5 - 2 10/30/13	RFI-38-12-27 0.5 - 2 10/30/13	RFI-38-12-28 0.5 - 2 10/30/13	RFI-38-12-29 0.5 - 2 10/30/13	RFI-38-12-30 0.5 - 2 10/30/13
VOC																	
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-22 1 - 2 10/30/13	RFI-38-12-23 1.2 - 2 10/30/13	RFI-38-12-24 1 - 2 10/30/13	RFI-38-12-25 0.8 - 2 10/30/13	RFI-38-12-26 0.5 - 2 10/30/13	RFI-38-12-27 0.5 - 2 10/30/13	RFI-38-12-28 0.5 - 2 10/30/13	RFI-38-12-29 0.5 - 2 10/30/13	RFI-38-12-30 0.5 - 2 10/30/13
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOC																	
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-22 1 - 2 10/30/13	RFI-38-12-23 1.2 - 2 10/30/13	RFI-38-12-24 1 - 2 10/30/13	RFI-38-12-25 0.8 - 2 10/30/13	RFI-38-12-26 0.5 - 2 10/30/13	RFI-38-12-27 0.5 - 2 10/30/13	RFI-38-12-28 0.5 - 2 10/30/13	RFI-38-12-29 0.5 - 2 10/30/13	RFI-38-12-30 0.5 - 2 10/30/13
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB																	
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																	
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**594**	**699**	**1,140**	**688**	**2,070**	**1,230**	**1,410**	**1,700**	**881**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	95	87	87	87	86	87	87	91	89

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-31 1 - 2 10/30/13	RFI-38-12-32 0.5 - 2 10/30/13	RFI-38-12-33 0.5 - 2 10/30/13	RFI-38-12-34 1 - 2 10/30/13	RFI-38-12-35 0.5 - 2 10/30/13	RFI-38-12-36 0.5 - 2 10/30/13	RFI-38-12-37 0.5 - 2 10/30/13	RFI-BG-08 0 - 2 08/29/02	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.46	NA	<0.49
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.46	NA	<0.49
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.03 M**	NA	**<0.03 M**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<1.1	NA	<1.1
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<4	NA	<4
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.46	NA	<0.49
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<4	NA	<4
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<1	NA	<1
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.3	NA	<0.3
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.3**	NA	**<0.3**
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	NA	<0.4
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.3	NA	<0.3
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.46	NA	<0.49
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-31 1 - 2 10/30/13	RFI-38-12-32 0.5 - 2 10/30/13	RFI-38-12-33 0.5 - 2 10/30/13	RFI-38-12-34 1 - 2 10/30/13	RFI-38-12-35 0.5 - 2 10/30/13	RFI-38-12-36 0.5 - 2 10/30/13	RFI-38-12-37 0.5 - 2 10/30/13	RFI-BG-08 0 - 2 08/29/02	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<1	NA	<1
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.07	NA	<0.07
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.07**	NA	**<0.07**
SVOC																			
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<2
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.28	NA	<0.28
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.83	NA	<0.83
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-38-12-31 1 - 2 10/30/13	RFI-38-12-32 0.5 - 2 10/30/13	RFI-38-12-33 0.5 - 2 10/30/13	RFI-38-12-34 1 - 2 10/30/13	RFI-38-12-35 0.5 - 2 10/30/13	RFI-38-12-36 0.5 - 2 10/30/13	RFI-38-12-37 0.5 - 2 10/30/13	RFI-BG-08 0 - 2 08/29/02	RFI-BG-08-2 0.6 - 2 10/12/12	RFI-BG-09 0 - 2 08/29/02	RFI-BG-09-2 0.5 - 1 10/11/12
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	**<0.33**	NA	**<0.33**
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	NA	<0.33
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	0.027 J	<0.5	0.013 J	<0.5
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	NA	NA	NA	NA	NA	NA	NA	**8.5 J**	3.01	**6.5 J**	1.05
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	NA	NA	NA	NA	NA	NA	NA	**80 J**	35.1	60 J	**89.6**
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	NA	NA	NA	NA	NA	NA	NA	0.42	0.32	0.47	0.64
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	NA	NA	NA	NA	NA	NA	NA	0.34 J	<0.2	0.33 J	<0.2
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	NA	NA	NA	NA	NA	NA	NA	16 J	4.83	16 J	6.71
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	NA	NA	NA	NA	NA	NA	NA	**6.7 J**	**11.3**	**6.4 J**	**11.6**
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	NA	NA	NA	NA	NA	NA	NA	13 J	5.23	17 J	5.35
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	NA	NA	NA	NA	NA	NA	NA	**30 J**	9.49	**45 J**	11.5
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**515**	**2,450**	**1,150**	**846**	**897**	**1,120**	**2,040**	**500**	**481**	**380**	**537**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	NA	NA	NA	NA	NA	NA	NA	**0.0556 J**	<0.05	**0.0761**	<0.05
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	NA	NA	NA	NA	NA	NA	NA	14 J	15.6	19 J	16.5
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	NA	NA	NA	NA	NA	NA	NA	0.039 J	<0.4	0.051 J	<0.4
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	NA	NA	NA	NA	NA	NA	NA	0.094 J	<0.1	0.086 J	<0.1
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	0.15 J	<0.2	0.16 J	<0.2
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	24 J	NA	22 J	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	NA	NA	NA	NA	NA	NA	NA	**85 J**	12.3	**87 J**	18.1
Miscellaneous																			
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	89	90	88	88	92	85	87	92.4	82	89.4	84

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0 - 2 03/22/13	RFI-BG-10-2 0.6 - 1 10/11/12	RFI-BG-10-2 3 - 5 03/22/13	RFI-BG-10-3 0 - 2 03/22/13	RFI-BG-10-3 3 - 5 03/22/13	RFI-BG-10-4 0 - 2 03/22/13	RFI-BG-10-4 3 - 5 03/22/13	RFI-BG-10-5 0 - 2 03/22/13	RFI-BG-10-5 3 - 5 03/22/13	RFI-BG-10-6 0 - 2 03/22/13
VOC																			
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.43	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	<0.43	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	NA	NA	**<0.03 M**	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	NA	NA	<0.98	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	NA	NA	<3	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	<0.43	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	NA	NA	<3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	**<0.3**	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	<0.4	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	NA	NA	<0.3	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	<0.43	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0 - 2 03/22/13	RFI-BG-10-2 0.6 - 1 10/11/12	RFI-BG-10-2 3 - 5 03/22/13	RFI-BG-10-3 0 - 2 03/22/13	RFI-BG-10-3 3 - 5 03/22/13	RFI-BG-10-4 0 - 2 03/22/13	RFI-BG-10-4 3 - 5 03/22/13	RFI-BG-10-5 0 - 2 03/22/13	RFI-BG-10-5 3 - 5 03/22/13	RFI-BG-10-6 0 - 2 03/22/13
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	NA	NA	<0.07	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	NA	NA	**<0.07**	NA	NA	NA	NA	NA	NA	NA	NA
SVOC																			
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	NA	NA	<2	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.83	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-BG-10 0 - 2 08/29/02	RFI-BG-10-2 0 - 2 03/22/13	RFI-BG-10-2 0.6 - 1 10/11/12	RFI-BG-10-2 3 - 5 03/22/13	RFI-BG-10-3 0 - 2 03/22/13	RFI-BG-10-3 3 - 5 03/22/13	RFI-BG-10-4 0 - 2 03/22/13	RFI-BG-10-4 3 - 5 03/22/13	RFI-BG-10-5 0 - 2 03/22/13	RFI-BG-10-5 3 - 5 03/22/13	RFI-BG-10-6 0 - 2 03/22/13
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	NA	NA	**<0.33**	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
PCB																			
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	<0.33	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic																			
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	0.042 J	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	**5.5 J**	NA	1.29	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	**150 J**	NA	23.1	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	0.89	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	1.1	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	**47 J**	NA	11.7	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	**3.8 J**	NA	**11.5**	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	29 J	NA	9	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	**190 J**	NA	8.36	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**2,100**	**1,470**	**366**	**527**	**300**	**472**	**708**	**128**	**447**	**646**	**284**
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	0.0265 J	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	17 J	NA	9.25	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	0.12 J	NA	<0.4	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	**0.26 J**	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	0.1 J	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	14 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	**720 J**	NA	14.9	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																			
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	93.5	92	88	85	94	92	89	77	88	90	89

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-BG-10-6 3 - 5 03/22/13	RFI-BG-10-8 0.3 - 2 10/30/13	RFI-BG-10-9 0.3 - 2 10/30/13	SB-38-01 1 - 2 09/05/13	SB-38-02 2 - 3 09/05/13	SB-38-03 6 - 7 09/05/13	SB-38-04 2 - 3 09/05/13	SB-38-05 3 - 3.5 09/05/13	SB-38-06 7 - 9 09/05/13
VOC																	
1,1,1,2-Tetrachloroethane	mg/kg	440	440 {(C)}	{ID}	440 {(C)}	6.4	530,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	mg/kg	460	460 {(C)}	1.8	460 {(C)}	4	29,000,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1,2,2-Tetrachloroethane	mg/kg	870	94	1.6 {(X)}	240	0.7	68,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	550	550 {(C)}	1.7	550 {(C)}	550 {(C)}	2,300,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	920	420	6.6 {(X)}	840	0.1	250,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1-Dichloroethane	mg/kg	890	890 {(C)}	15	890 {(C)}	50	15,000,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,1-Dichloroethene	mg/kg	570	220	2.6	570 {(C)}	0.14	78,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,2,3-Trichlorobenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.38	<0.39	<0.38	<0.41	<0.41	<0.47
1,2,3-Trichloropropane	mg/kg	830	830 {(C)}	{NA}	830 {(C)}	2.4	8,800	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-Trimethylbenzene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	<0.38	<0.39	<0.38	<0.41	<0.41	<0.47
1,2,4-Trimethylbenzene	mg/kg	110	110 {(C)}	0.57	110 {(C)}	2.1	36,000,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
1,2-Dibromoethane	mg/kg	890	0.5	0.11 {(X)}	0.43	0.02 {(M)}	18,000	{NA}	NA	NA	NA	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	**<0.03 M**
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	mg/kg	1,200	380	7.2 {(X)}	420	0.1	150,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,2-Dichloropropane	mg/kg	550	320	4.6 {(X)}	550 {(C)}	0.1	120,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
1,3,5-Trimethylbenzene	mg/kg	94	94 {(C)}	1.1	94 {(C)}	1.8	36,000,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-Butanone	mg/kg	27,000	27,000 {(C)}	44	27,000 {(C,DD)}	760	29,000,000	{NA}	NA	NA	NA	<0.87	<0.88	<0.86	<0.93	<0.93	<1.1
2-Hexanone	mg/kg	2,500	2,500 {(C)}	{ID}	2,500 {(C)}	58	1,200,000	{NA}	NA	NA	NA	<3	<3	<3	<3	<3	<4
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	<0.38	<0.39	<0.38	<0.41	<0.41	2.26
4-Methyl-2-pentanone	mg/kg	2,700	2,700 {(C)}	{ID}	2,700 {(C)}	100	60,000,000	{NA}	NA	NA	NA	<3	<3	<3	<3	<3	<4
Acetone	mg/kg	110,000	110,000 {(C)}	34	73,000	42	170,000,000	{NA}	NA	NA	NA	<1	<1	<1	<1	<1	<1
Acrylonitrile	mg/kg	8,300	280	0.1 {(M)}	74	0.22	58,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	mg/kg	400	220	4 {(X)}	400 {(C)}	0.1	470,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Bromobenzene	mg/kg	760	360	{NA}	760 {(C)}	1.5	240,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	mg/kg	1,500	280	{ID}	490	1.6 {(W)}	110,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	870	870 {(C)}	{ID}	870 {(C)}	1.6 {(W)}	3,600,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	2,200	1,400	0.7	1,000	0.58	150,000	{NA}	NA	NA	NA	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
Carbon Disulfide	mg/kg	280	280 {(C)}	{ID}	280 {(C,DD)}	46	21,000,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Carbon Tetrachloride	mg/kg	390	92	0.9 {(X)}	390 {(C)}	0.1	170,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Chlorobenzene	mg/kg	260	260 {(C)}	0.5	260 {(C)}	2	2,100,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Chloroethane	mg/kg	950	950 {(C)}	22 {(X)}	950 {(C)}	34	290,000,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Chloroform	mg/kg	1,500	1,500 {(C)}	7	1,500 {(C)}	1.6 {(W)}	1,600,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Chloromethane	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	22	2,600,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
cis-1,2-Dichloroethene	mg/kg	640	640 {(C)}	12	640 {(C)}	1.4	1,000,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
cis-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Cyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	mg/kg	610	360	{ID}	500	1.6 {(W)}	160,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	2,000	2,000 {(C)}	{NA}	2,000 {(C)}	4.6	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Dichlorodifluoromethane	mg/kg	1,000	1,000 {(C)}	{ID}	1,000 {(C)}	270	1,500,000,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
Diethyl ether	mg/kg	7,400	7,400 {(C)}	{ID}	7,400 {(C)}	0.2	350,000,000	{NA}	NA	NA	NA	<0.2	<0.2	<0.2	<0.2	<0.2	**<0.3**
Ethylbenzene	mg/kg	140	140 {(C)}	0.36	140 {(C)}	1.5	13,000,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	<0.3	<0.4	<0.3	<0.4	<0.4	<0.4
Iodomethane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isopropylbenzene	mg/kg	390	390 {(C)}	3.2	390 {(C)}	260	2,600,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4
m&p-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methyl acetate	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	mg/kg	5,900	5,900 {(C)}	140 {(X)}	5,900 {(C)}	0.8	88,000,000	{NA}	NA	NA	NA	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
Methylcyclohexane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	mg/kg	2,300	2,300 {(C)}	30 {(X)}	2,300 {(C)}	0.1	8,300,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	<0.38	<0.39	<0.38	<0.41	<0.41	**1.95**
n-Butylbenzene	mg/kg	10,000	120	{ID}	8,000	4.6	880,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
n-Propylbenzene	mg/kg	10,000	300	{ID}	8,000	4.6	590,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o-Xylene	mg/kg	150	150 {(C)}	0.82	150 {(C)}	5.6	130,000,000	- -	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
p-Isopropyltoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-Butylbenzene	mg/kg	10,000	88	{ID}	8,000	4.6	180,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Styrene	mg/kg	520	270	2.1 {(X)}	520 {(C)}	2.7	6,900,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
tert-Butylbenzene	mg/kg	10,000	180	{ID}	8,000	4.6	290,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-BG-10-6 3 - 5 03/22/13	RFI-BG-10-8 0.3 - 2 10/30/13	RFI-BG-10-9 0.3 - 2 10/30/13	SB-38-01 1 - 2 09/05/13	SB-38-02 2 - 3 09/05/13	SB-38-03 6 - 7 09/05/13	SB-38-04 2 - 3 09/05/13	SB-38-05 3 - 3.5 09/05/13	SB-38-06 7 - 9 09/05/13
Tetrachloroethene	mg/kg	88	88 {(C)}	1.2 {(X)}	88 {(C)}	0.1	1,200,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Tetrahydrofuran	mg/kg	120,000	32,000	220 {(X)}	9,500	5.4	170,000,000	{NA}	NA	NA	NA	<1	<1	<1	<1	<1	<1
Toluene	mg/kg	250	250 {(C)}	5.4	250 {(C)}	16	12,000,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	mg/kg	1,400	1,400 {(C)}	30 {(X)}	1,400 {(C)}	2	2,100,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
trans-1,3-Dichloropropene	mg/kg	620	110	0.18 {(X)}	240	0.7	590,000	- -	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
trans-1,4-Dichloro-2-butene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Trichloroethene	mg/kg	500	440	4 {(X)}	500 {(C,DD)}	0.1	59,000	{NA}	NA	NA	NA	<0.06	<0.06	<0.06	<0.06	<0.06	<0.07
Trichlorofluoromethane	mg/kg	560	560 {(C)}	{NA}	560 {(C)}	150	1,700,000,000	{NA}	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl Chloride	mg/kg	490	20	0.26 {(X)}	34	0.04	890,000	{NA}	NA	NA	NA	**<0.06**	**<0.06**	**<0.06**	**<0.06**	**<0.06**	**<0.07**
SVOC																	
1,1'-Biphenyl	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	1,100	1,100 {(C)}	5.9 {(X)}	1,100 {(C,DD)}	4.2	11,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	210	210 {(C)}	0.28	210 {(C)}	14	44,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	170	51	0.68	170 {(C)}	0.48	88,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	{NA}	140	0.36	1,900	1.7	570,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	3.9 Y
2,2'-Oxybis(1-Chloropropane)	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	{NA}	9,100	{NA}	73,000	110	10,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	{NA}	200	0.33 {(M)}	3,300	9.4	1,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	1,800	960	0.33 {(M)}	1,800 {(C,DD)}	4.2	2,300,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	{NA}	10,000	7.6	36,000	20	2,100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	{NA}	170	{NA}	220	0.64	20,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	{NA}	2,300	{NA}	180,000	1,800	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	19,000	1,900	0.36	4,500	2.6	530,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	{NA}	5,500	4.2	26,000	170	290,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	**4.5 Y**
2-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	{NA}	1,600	{ID}	2,000	1.2	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	{NA}	4.6	2 {(M)}	30	2 {(M)}	8,200	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	{NA}	3,000	0.28	15,000	16	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	{NA}	970	8.7	130,000	880	6,200,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	**16.9 Y**
Acenaphthylene	mg/kg	{NA}	440	{ID}	5,200	17	1,000,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	5.6 Y
Acetophenone	mg/kg	1,100	1,100 {(C)}	{ID}	1,100 {(C)}	88	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	{NA}	41	{ID}	730,000	41	29,000,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	0.9	<0.3	**41.9 Y**
Atrazine	mg/kg	{NA}	110	0.15	330 {(DD)}	0.06	{ID}	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	2.6	<0.3	**122.2 Y**
Benzo(a)pyrene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	1,900	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	2.5	<0.3	**125.8 Y**
Benzo(b)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	4.4 p	<0.3	**218.1 Yp**
Benzo(g,h,i)perylene	mg/kg	{NA}	{NLL}	{NLL}	7,000	{NLL}	350,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	1.5	<0.3	53.4 Y
Benzo(k)fluoranthene	mg/kg	{NA}	{NLL}	{NLL}	800	{NLL}	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	4.8 p	<0.3	242.5 Yp
bis(2-Chloroethoxy)methane	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	2,200	110	0.1 {(M)}	58	0.17	12,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	10,000	{NLL}	{NLL}	10,000 {(C)}	{NLL}	890,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	mg/kg	310	310 {(C)}	120 {(X)}	310 {(C)}	310 {(C)}	21,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	mg/kg	{NA}	1,000,000 {(D)}	{NA}	310,000 {(DD)}	340	290,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	{NA}	820	1.1	2,400	39	78,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	{NA}	{NLL}	{NLL}	8,000	{NLL}	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	3	<0.3	133.5 Y
Dibenzo(a,h)anthracene	mg/kg	{NA}	{NLL}	{NLL}	8	{NLL}	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	0.6	<0.3	**26.3 Y**
Dibenzofuran	mg/kg	{NA}	{ID}	1.7	{ID}	{ID}	2,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	740	740 {(C)}	2.2	740 {(C)}	320	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	790	790 {(C)}	{NA}	790 {(C)}	790 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2C
Summary of Soil Sample Analytical Results
Northern Parcel - Buick City Site
Flint, Michigan

Location ID: Sample Depth(ft BGS): Date Collected:	Units	CSAT	GCCP	GSIP	NDC	NDWP	NPSIC	SDBL	RFI-BG-10-6 3 - 5 03/22/13	RFI-BG-10-8 0.3 - 2 10/30/13	RFI-BG-10-9 0.3 - 2 10/30/13	SB-38-01 1 - 2 09/05/13	SB-38-02 2 - 3 09/05/13	SB-38-03 6 - 7 09/05/13	SB-38-04 2 - 3 09/05/13	SB-38-05 3 - 3.5 09/05/13	SB-38-06 7 - 9 09/05/13
Di-n-Butylphthalate	mg/kg	760	760 {(C)}	11	760 {(C)}	760 {(C)}	1,500,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	mg/kg	140,000	140,000 {(C)}	{ID}	20,000	140,000 {(C)}	14,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	{NA}	730	5.5	130,000	730	4,100,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	**6**	<0.3	**255.6 Y**
Fluorene	mg/kg	{NA}	890	5.3	87,000	890	4,100,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	0.5	<0.3	**20.9 Y**
Hexachlorobenzene	mg/kg	{NA}	8.2	0.35	37	1.8	8,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	350	350 {(C)}	0.091	350 {(C)}	72	180,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	720	720 {(C)}	{ID}	720 {(C)}	320	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	{NA}	110	1.8 {(X)}	730	1.2	100,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	{NA}	{NLL}	{NLL}	80	{NLL}	{ID}	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	1.4	<0.3	54.1 Y
Isophorone	mg/kg	2,400	2,400 {(C)}	26 {(X)}	2,400 {(C)}	62	8,200,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylphenols, Total	mg/kg	{NA}	16,000	1 {(M)}	36,000	20	2,900,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	{NA}	2,100	0.73	52,000	100	88,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	<0.3	<0.3	**4.6 Y**
Nitrobenzene	mg/kg	490	220	3.6 {(X)}	340	0.33 {(M)}	21,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	mg/kg	1,500	7.2	{NA}	5.4	0.33 {(M)}	2,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	{NA}	700	{NA}	7,800	22	2,800,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	{NA}	4.3	26.5 {(G,X)}	320	0.022	130,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	{NA}	1,100	2.1	5,200	160	2,900	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	**5.6**	<0.3	**177.9 Y**
Phenol	mg/kg	12,000	12,000 {(C)}	9	12,000 {(C,DD)}	260	18,000,000	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	{NA}	480	{ID}	84,000	480	2,900,000	{NA}	NA	NA	NA	<0.3	<0.3	<0.3	4.6	<0.3	212.7 Y
PCB																	
Aroclor-1016	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	- -	NA	NA	NA	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Total PCBs	mg/kg	{NA}	{NLL}	{NLL}	16 {(T)}	{NLL}	6,500	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
ARC-TPH-C28C36	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<4	65 Y	11	285 YS	201 YS	570 Y
Total Petroleum Hydrocarbons (C10-C28) DRO	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	<4	70 Y	21	NA	NA	754 Y
Inorganic																	
Antimony	mg/kg	{NA}	49,000	94 {(X)}	670	4.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	{NA}	2,000	4.6	37	4.6	910	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	{NA}	1,000,000	858 {(G)}	130,000	1,300	150,000	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	{NA}	1,000,000	408 {(G)}	1,600	51	590	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	{NA}	230,000	5.74 {(G,X)}	2,100	6	2,200	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/kg	{NA}	1,000,000 {(D)}	4,960,000	1,000,000 {(D)}	1,000,000 {(D)}	150,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	{NA}	48,000	2	9,000	2	5,900	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	{NA}	1,000,000	124 {(G)}	73,000	5,800	59,000	32	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/kg	{NA}	250	0.1	250	4	250	0.39 {(total)}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	{NA}	- -	5,450 {(G,X)}	900	700	44,000	21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	{NA}	180,000	95.3 {(G,X)}	90,000	1	1,500	440	**569**	**631**	**1,240**	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	{NA}	47	0.05 {(M)}	580	1.7	8,800	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	{NA}	1,000,000	129 {(G)}	150,000	100	16,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	{NA}	78,000	0.4	9,600	4	59,000	0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	{NA}	200,000	0.1 {(M)}	9,000	13	2,900	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	{NA}	15,000	4.2 {(X)}	130	2.3	5,900	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	{NA}	1,000,000	430	5,500	990	- -	{NA}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	{NA}	1,000,000	280 {(G)}	630,000	5,000	- -	47	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Percent Moisture	mg/kg	- -	- -	- -	- -	- -	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids	%	- -	- -	- -	- -	- -	- -	- -	88	90	91	91	94	93	91	91	84

Notes:
Bold and highlighted cells indicate an exceedance of SDBL and one or more criteria.