Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

# DATA REPORT
# AND PROPOSED ADDITIONAL INVESTIGATION

TO: Brandon Pursel, USEPA
Dave Favero, RACER TRUST
Grant Trigger, RACER TRUST

FROM: Mike Smith, Applied EcoSystems, Inc.

DATE: August 11, 2017

SUBJECT: RACER Flint West Industrial Land (#12990)
Summary of Additional Site Investigation

CONTENTS:


1.0 Introduction……..2
2.0 Investigation Activities Completed……..2
3.0 Investigation Results…….3
4.0 Proposed Additional Investigations……..5
5.0 Proposed Schedule……....5


FIGURES:


Figure 1: Site Location Map
Figure 2: Soil Boring and Well Location Map
Figure 3: Groundwater Contour Map – October, November 2016
Figure 4: Summary of Drinking Water and GSI Exceedances in Groundwater (2012-2017)
Figure 5: Summary of Drinking Water and GSI Exceedances in Soil (2012-2014)


ATTACHMENTS:


Attachment 1: Cross Section Diagrams
Attachment 2: Groundwater Analytical Tables (All investigations conducted by RACER to-date)
Attachment 3: Groundwater Analytical Laboratory Reports (June, 2017)
Attachment 4: Soil Analytical Tables (All investigations conducted by RACER to-date)



G-4300 South Saginaw Street, Burton, Michigan 48529 Office (810) 715-2525 Fax (810) 715-2526

## 1.0 INTRODUCTION

Applied EcoSystems, Inc. (Applied EcoSystems) completed a groundwater monitoring event at the RACER Trust Flint West Industrial Land - #12990 Site on June 13, 2017 as outlined in the February 21, 2017 Data Report submitted to the United States Environmental Protection Agency (USEPA).

A Site Location Map is included as Figure 1. The Site consists of approximately five acres of land located west of Stevens Street and north of Glenwood Avenue in Flint, Genesee County, Michigan. Almost the entire Site consists of concrete pavement, remaining after the demolition of a former manufacturing building. The majority of the Site is secured with a locked chain-link fence.

The Site is developed with a Consumers Energy electrical substation with an equipment shelter in the central portion and a utility conduit shed on the southeast corner. Per John Ebenhoeh with Consumers Energy, the small building on the southeast corner is a shelter for conduits that run under the road to the GM tool and die facility. This building is accessed approximately once per year for approximately two hours. The building in the fenced area is a support equipment shelter for the substation. The fenced area is accessed approximately once per month for approximately two hours, and the building itself is accessed less frequently and for shorter durations.

Due to a change in ownership, the abandoned railroad parcel north and west of the Site is not currently accessible to RACER. RACER is in the process of pursuing a site access agreement for this property. Accordingly, monitoring wells MW-108S, MW-109S, MW-110S, and MW-113S were not sampled. MW-100S was dry and was not sampled. There were no other exceptions to the approved USEPA groundwater monitoring scope of work.

## 2.0 INVESTIGATION ACTIVITIES COMPLETED

Groundwater Monitoring (Task 6)

- All wells (except MW-100S, MW-108S, MW-109S, MW-110S, and MW-113S) were gauged. No NAPL was encountered.
- All wells (except MW-100S, MW-108S, MW-109S, MW-110S, and MW-113S) were sampled. Samples were analyzed for volatile organic compounds (VOCs), and the following metals (total and dissolved): arsenic, chromium (total and hexavalent), copper, lead, selenium, and zinc. Analytical results are attached. A Soil Boring and Well Location Map is attached as Figure 2. A Groundwater Contour Map, prepared using the October/November 2016 groundwater elevation data is included as Figure 3 in Appendix A. Cross section diagrams, showing soil types, groundwater elevations, and soil and groundwater data, are included in Attachment 1.


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## 3.0 INVESTIGATION RESULTS

Comparison of groundwater data to current (December 30, 2013) Michigan Department of Environmental Quality (MDEQ) Generic Residential and Non-Residential Cleanup Criteria (GRCC) indicates the following:

**Metals**: Select metals were detected above drinking water and GSI criteria as shown in the table below. The metals concentrations are consistent with expected regional conditions, do not appear to represent a plume, and are believed to be naturally-occurring. Although the MDEQ has published state-wide and regional "background" concentrations for soils, there are no such values published for groundwater. The concentrations are generally consistent with concentrations encountered by Applied EcoSystems at other uncontaminated sites in the Flint area. Total metals results appear to have been influenced by turbidity. Accordingly, the dissolved metals concentrations are considered to be more representative of site conditions for the purposes of this assessment.

**Table 1.0 – Dissolved Metals Exceedances in Groundwater**

| Well ID | Metal | Drinking Water Criterion | GSI Criterion | Result |
|---|---|---|---|---|
| MW-103S | Dissolved Arsenic | **10** | **10** | 13 |

All results are expressed in ug/L


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**VOCs**: Exceedances were present as follows:

**Table 2.0 – VOCs Exceedances in Groundwater**

| Well ID | VOC | Drinking Water Criterion | GSI Criterion | Result |
|---|---|---|---|---|
| MW-105S | Tetrachloroethane | **5** | 60 | 29 |
| MW-112S | Trichloroethene | **5** | 200 | 10 |
| | Vinyl Chloride | **2** | 13 | 10 |

- All results are expressed in ug/L

Criteria in **red** indicate an exceedance for that pathway. A table of all groundwater sample analytical results for all groundwater samples collected by RACER is included as Attachment 2. Sample analytical results for the June, 2017 groundwater monitoring event are included as Attachment 3. Figure 4 illustrates the GSI and drinking water exceedances in groundwater identified in groundwater samples collected from 2012 through 2017.

The primary constituents of concern are Trichloroethene, Tetrachloroethene, and Vinyl Chloride. Note that elevated Tetrachloroethene levels have been consistently detected in one up gradient well, MW-105S since April 2012.

Figure 5 is a map showing a summary of drinking water and GSI exceedances in soil from 2012 through 2014. Tables, showing all soil analytical results for samples collected by RACER, are included as Attachment 4.


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## 4.0 PROPOSED ADDITIONAL INVESTIGATION

An additional round of groundwater monitoring is planned for October, 2017. Samples will be analyzed for the same parameters as analyzed for the June, 2017 event, including hexavalent chromium if possible, if turbidity levels are low enough.

Other future action is dependent upon Michigan Department of Environmental Quality (MDEQ) approval of a groundwater waiver for injection of Hydrogen Release Compound (HRC) as outlined in a Pilot Study Work Plan approved by USEPA on January 13, 2017, and the findings of the pilot study.

## 5.0 PROPOSED SCHEDULE:

Groundwater monitoring is planned for October, 2017.

A schedule for any other future activities will be developed upon MDEQ approval of the HRC injection pilot study.


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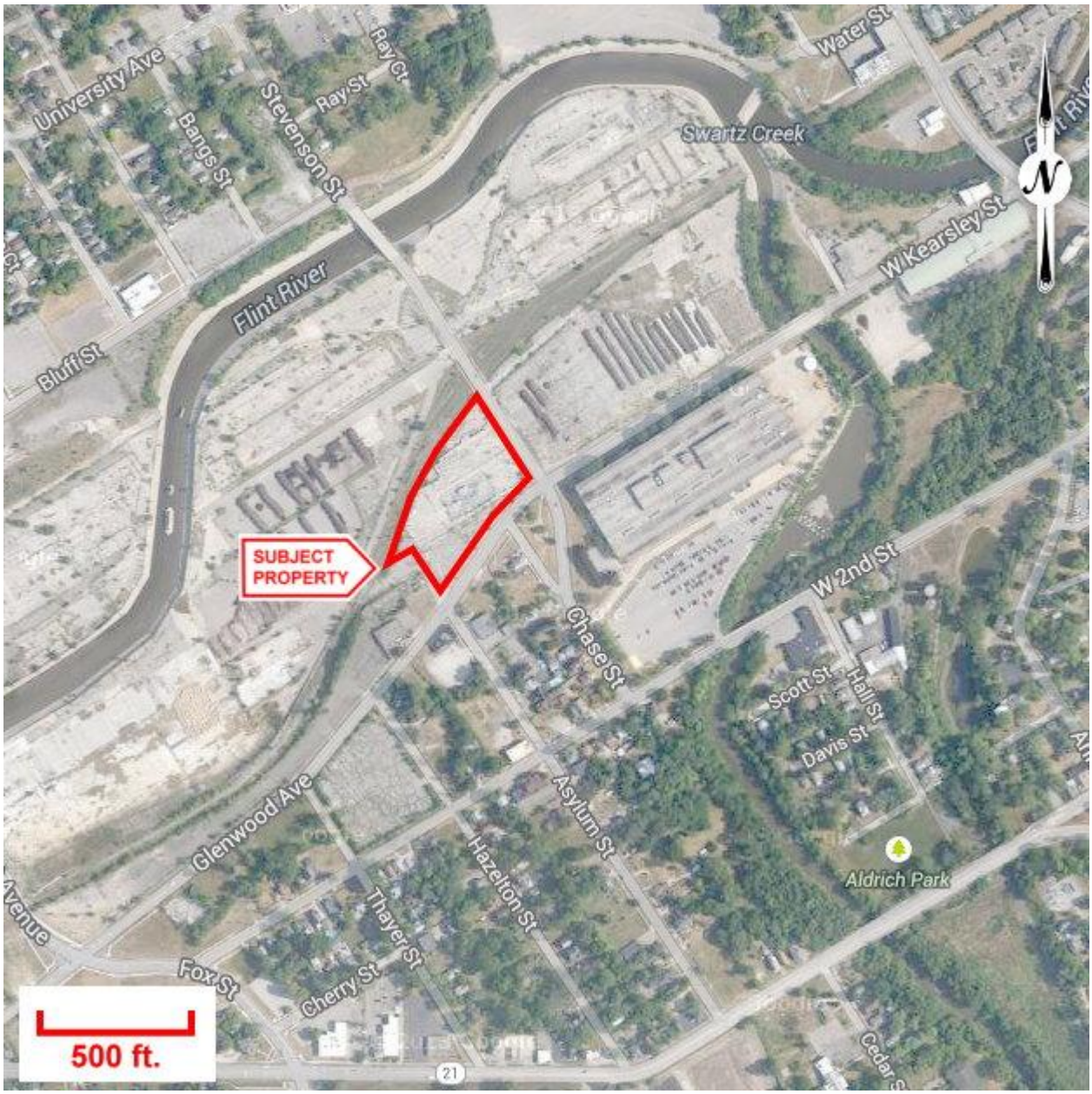
# FIGURES

# SITE LOCATION MAP

RACER Flint West

| FIGURE | DATE | SCALE | PROJECT No. |
|---|---|---|---|
| 1 | 2014 | As Shown | 11-4317-102 |




| Source: United States Geological Survey | Property outline is approximate. |
|---|---|


Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

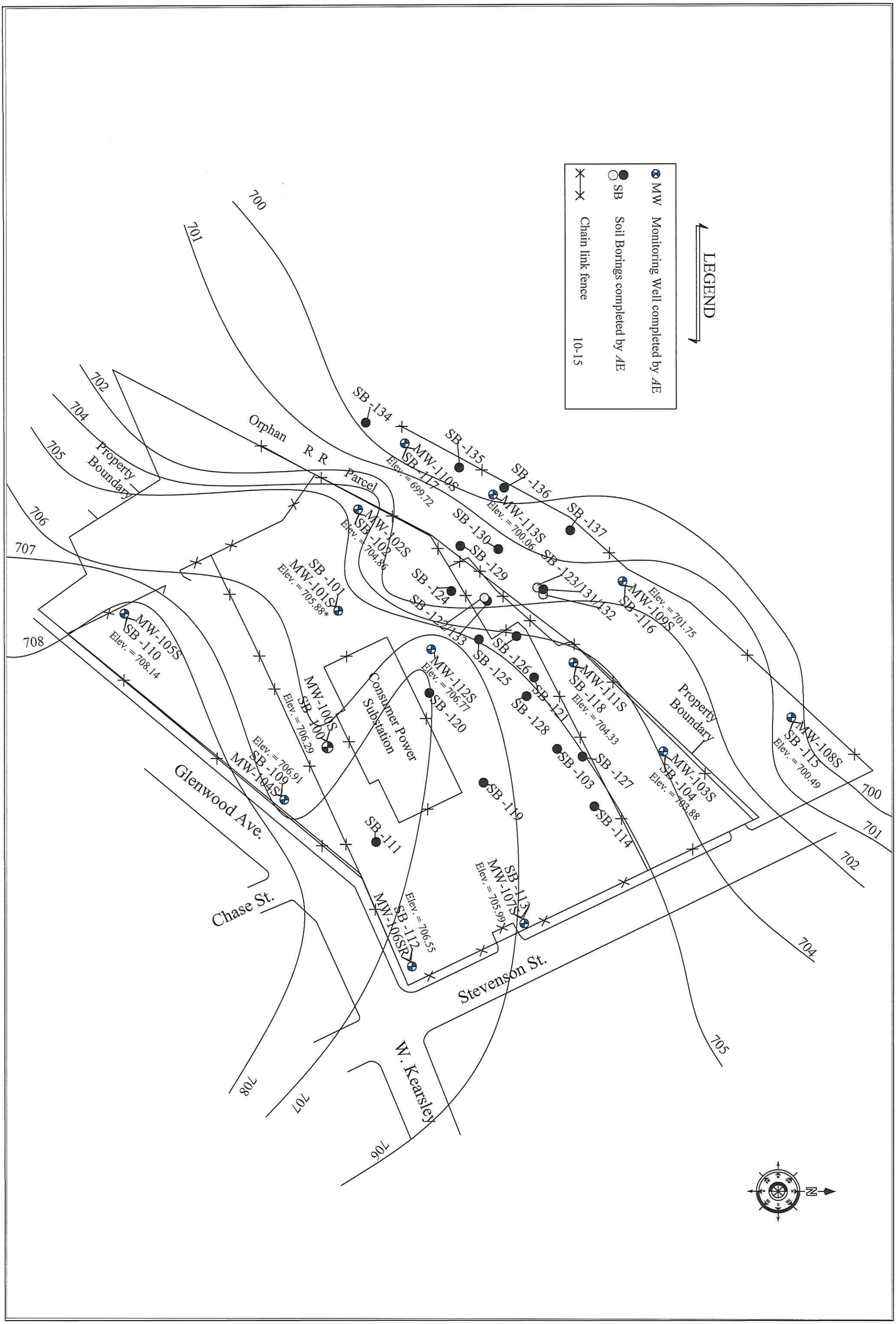
G-4300 South Saginaw Street
Burton, Michigan 48529
☎(810) 715-2525
FAX (810) 715-2526
www.AppliedEcoSystems.com

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526


**Soil Boring and Well Location Map**

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

| DATE: | SCALE: |
|---|---|
| 2015 | As Shown |
| **PROJECT:** | **FIGURE:** |
| 11-4317-102 | 2 |




| | | | |
|---|---|---|---|
| Applied EcoSystems, Inc.<br>Environmental Management, Consulting & Field Services<br>G-4300 South Saginaw Street, Burton, Michigan 48529<br>Phone: 810.715.2525; Fax: 810.715.2526 | ***Groundwater Contour Map***<br>***October, November 2016***<br>***Sampling Event***<br>Racer Flint West - 12990<br>Flint West Industrial Land, Flint, MI | **DATE:**<br>2016 | **SCALE:**<br>As Shown |
| | | **PROJECT:**<br>11-4317-102 | **FIGURE:**<br>3 |

## LEGEND

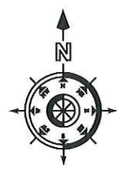
- MW — Monitoring well
- SB — Soil boring
- SB — Multiple soil borings in one location
- Trichloroethene - DW GRCC exceedance estimated boundary based on all groundwater sampling events
- GSI — Ground Water to Surface Water Interface
- DW — Drinking Water Threshold
- GRCC — General Residential Cleanup Criteria

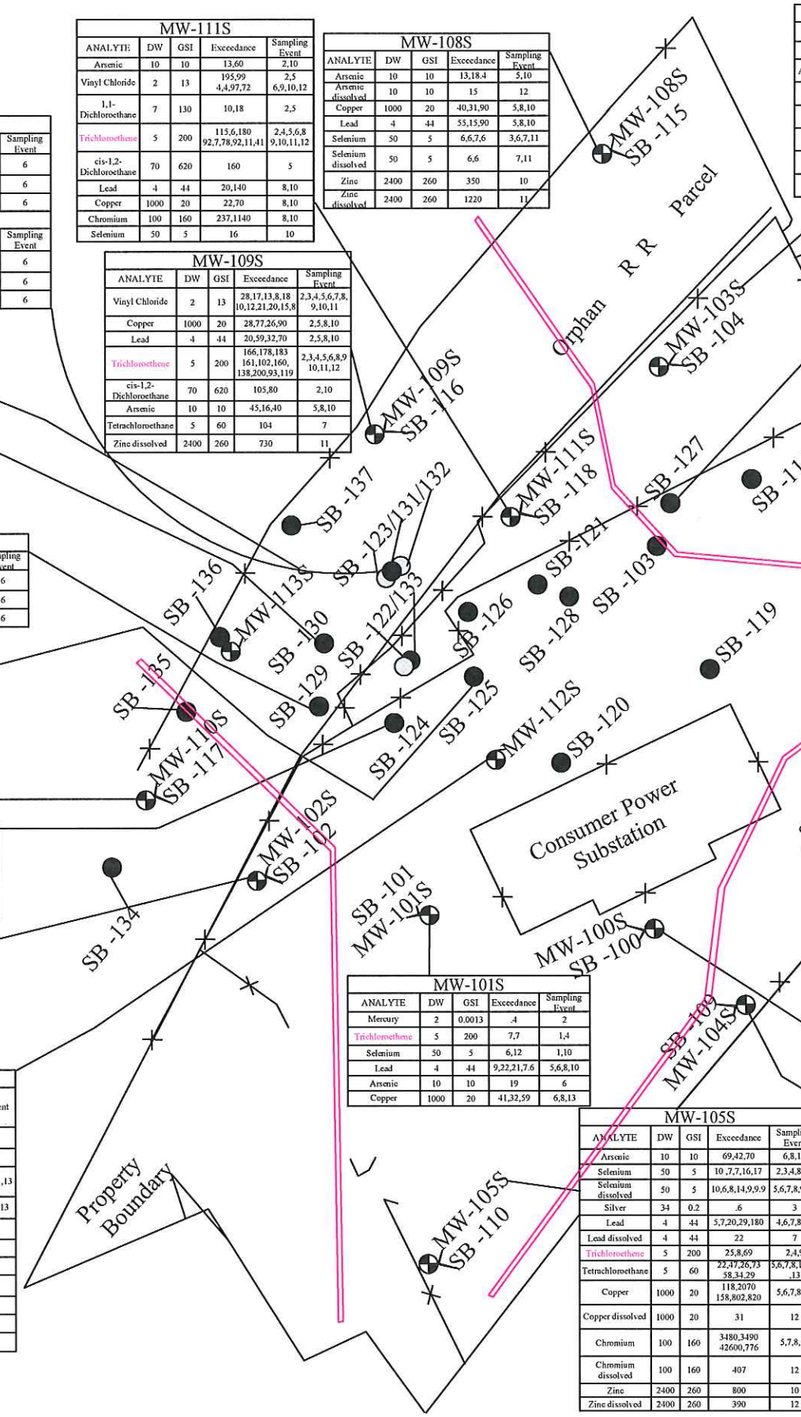
Laboratory analytical data presented in parts per billion (ug/L)

0' 30' 60' 90' 120'

Approximate Scale in feet

| Groundwater Sampling Events | |
|---|---|
| April 2012 | 1 |
| December 2012 | 2 |
| April 2013 | 3 |
| August 2013 | 4 |
| December 2013 | 5 |
| April 2014 | 6 |
| July 2014 | 7 |
| December 2014 | 8 |
| May 2015 | 9 |
| October 2015 | 10 |
| June 2016 | 11 |
| Oct./Nov. 2016 | 12 |
| June 2017 | 13 |




### MW-113S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Zinc | 2400 | 260 | 7030,504 | 5,8 |
| Zinc dissolved | 2400 | 260 | 502,317 | 5,11 |
| Chromium | 100 | 160 | 479,2920 132,170,822,220 | 4,5 6,7,8,10 |
| Chromium dissolved | 100 | 160 | 128,152 | 6,7 |
| Trichloroethene | 5 | 200 | 21,62,69,61, 36,67,50,50 | 4,5,7,8 9,10,11,12 |
| Lead | 4 | 44 | 3310,5 289,50 | 5,7,8,10 |
| Lead dissolved | 4 | 44 | 5 | 7 |
| Copper | 1000 | 20 | 4160,300,80 | 5,8,10 |
| Arsenic | 10 | 10 | 40,30 | 8,10 |

### SB-131 TWT

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 28 | 6 |
| Lead dissolved | 4 | 44 | 16 | 6 |
| Trichloroethene | 5 | 200 | 81 | 6 |

### SB-131 TWB

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 144 | 6 |
| Lead dissolved | 4 | 44 | 14 | 6 |
| Trichloroethene | 5 | 200 | 78 | 6 |

### MW-111S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic | 10 | 10 | 13,60 | 2,10 |
| Vinyl Chloride | 2 | 13 | 195,99 4,4,97,72 | 2,5 6,9,10,12 |
| 1,1-Dichloroethane | 7 | 130 | 10,18 | 2,5 |
| Trichloroethene | 5 | 200 | 115,6,180 92,7,78,92,11,41 | 2,4,5,6,8 9,10,11,12 |
| cis-1,2-Dichloroethane | 70 | 620 | 160 | 5 |
| Lead | 4 | 44 | 20,140 | 8,10 |
| Copper | 1000 | 20 | 22,70 | 8,10 |
| Chromium | 100 | 160 | 237,1140 | 8,10 |
| Selenium | 50 | 5 | 16 | 10 |

### MW-108S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic | 10 | 10 | 13,18.4 | 5,10 |
| Arsenic dissolved | 10 | 10 | 15 | 12 |
| Copper | 1000 | 20 | 40,31,90 | 5,8,10 |
| Lead | 4 | 44 | 55,15,90 | 5,8,10 |
| Selenium | 50 | 5 | 6,6,7,6 | 3,6,7,11 |
| Selenium dissolved | 50 | 5 | 6,6 | 7,11 |
| Zinc | 2400 | 260 | 350 | 10 |
| Zinc dissolved | 2400 | 260 | 1220 | 11 |

### MW-103S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic | 10 | 10 | 48,55,41,52,24,36,140,22, 13 | 1,2,3,4,5,7,10,11,13 |
| Arsenic dissolved | 10 | 10 | 23,11 | 5,6 |
| Chromium | 100 | 160 | 120 | 10 |
| Copper | 1000 | 20 | 160 | 10 |
| Lead | 4 | 44 | 80 | 10 |
| Zinc | 2400 | 260 | 410 | 10 |
| Zinc dissolved | 2400 | 260 | 1870 | 11 |

### SB-127 TWT

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic dissolved | 10 | 10 | 57 | 6 |
| Lead dissolved | 4 | 44 | 5 | 6 |
| Vinyl chloride | 2 | 13 | 5 | 6 |

### SB-127 TWB

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic dissolved | 10 | 10 | 38 | 6 |
| Lead dissolved | 4 | 44 | 19 | 6 |
| Ethylbenzene | 74 | 18 | 31 | 6 |

### MW-107S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic | 10 | 10 | 20,15,68 | 5,6,10 |
| Copper dissolved | 1000 | 20 | 110 | 5 |
| Copper | 1000 | 20 | 29,70 | 8,10 |
| Lead | 4 | 44 | 30,17,6,16.8 | 5,6,8,10 |
| Selenium | 50 | 5 | 10 | 5 |
| Zinc | 2400 | 260 | 190,97 | 5,6 |
| Zinc dissolved | 2400 | 260 | 60 | 5 |
| Trichloroethene | 5 | 200 | 6,9 | 2,3 |
| Chromium | 100 | 160 | 1510 | 7 |

### MW-109S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Vinyl Chloride | 2 | 13 | 28,17,13,8,18 10,12,21,20,15,8 | 2,3,4,5,6,7,8, 9,10,11 |
| Copper | 1000 | 20 | 28,77,26,90 | 2,5,8,10 |
| Lead | 4 | 44 | 20,59,32,70 | 2,5,8,10 |
| Trichloroethene | 5 | 200 | 166,178,183 161,102,160, 138,200,93,119 | 2,3,4,5,6,8,9 10,11,12 |
| cis-1,2-Dichloroethane | 70 | 620 | 105,80 | 2,10 |
| Arsenic | 10 | 10 | 45,16,40 | 5,8,10 |
| Tetrachloroethane | 5 | 60 | 104 | 7 |
| Zinc dissolved | 2400 | 260 | 730 | 11 |

### SB-130 TWT

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 140 | 6 |
| Lead dissolved | 4 | 44 | 208 | 6 |
| Zinc dissolved | 2400 | 260 | 326 | 6 |

### SB-130 TWB

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 94 | 6 |
| Lead dissolved | 4 | 44 | 31 | 6 |

### SB-129 TWT

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 22 | 6 |
| Lead dissolved | 4 | 44 | 23 | 6 |
| Zinc dissolved | 2400 | 260 | 323 | 6 |
| Trichloroethene | 5 | 200 | 8 | 6 |

### SB-129 TWB

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 24 | 6 |
| Lead dissolved | 4 | 44 | 11 | 6 |
| Trichloroethene | 5 | 200 | 8 | 6 |

### SB-125 TWT

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic dissolved | 10 | 10 | 17 | 6 |

### SB-125 TWB

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic dissolved | 10 | 10 | 30 | 6 |
| Zinc dissolved | 2400 | 260 | 400 | 6 |

### SB-124 TWT

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 21 | 6 |
| Lead dissolved | 4 | 44 | 29 | 6 |
| Selenium dissolved | 50 | 5 | 12 | 6 |
| Zinc dissolved | 2400 | 260 | 311 | 6 |

### SB-124 TWB

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper dissolved | 1000 | 20 | 42 | 6 |
| Lead dissolved | 4 | 44 | 47 | 6 |
| Selenium dissolved | 50 | 5 | 12 | 6 |

### MW-106SR

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Vinyl Chloride | 2 | 13 | 99 | 1 |
| Silver | 34 | 0.2 | 0.6 | 3 |
| Arsenic | 10 | 10 | 99,65,13 | 5,6,8,10 |
| Copper | 1000 | 20 | 747,1100,402,2360,28 | 5,6,8,10,13 |
| Cooper dissolved | 1000 | 20 | 32 | 12 |
| Lead | 4 | 44 | 146,64,44,300 | 5,6,8,10 |
| Lead dissolved | 4 | 44 | 23 | 7 |
| Selenium | 50 | 5 | 8,7 | 5,6 |
| Zinc | 2400 | 260 | 657,342,1600 | 5,6,10 |
| Chromium | 100 | 160 | 40000,38700 48000,440500,2560 | 5,6,8,10,13 |
| Chromium dissolved | 100 | 160 | 128,340 | 10,12 |

### MW-102S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Cadmium | 5 | 4.5 | 65 | 1 |
| Selenium | 50 | 5 | 6,16 | 1,10 |
| Selenium dissolved | 50 | 5 | 6 | 7 |
| Arsenic | 10 | 10 | 19,12,20 | 5,8,10 |
| Copper | 1000 | 20 | 25,22,37.4 | 5,8,10 |
| Lead | 4 | 44 | 13,14,20.4 | 5,8,10 |

### MW-101S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Mercury | 2 | 0.0013 | .4 | 2 |
| Trichloroethene | 5 | 200 | 7,7 | 1,4 |
| Selenium | 50 | 5 | 6,12 | 1,10 |
| Lead | 4 | 44 | 9,22,21,7.6 | 5,6,8,10 |
| Arsenic | 10 | 10 | 19 | 6 |
| Copper | 1000 | 20 | 41,32,59 | 6,8,13 |

### MW-110S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic | 10 | 10 | 11,41,20,55,30 | 4,5,6,8,10 |
| Arsenic dissolved | 10 | 10 | 21,17 | 6,8 |
| Copper | 1000 | 20 | 49,62 278,059,736 | 2,4 5,6,8 |
| Copper dissolved | 1000 | 20 | 28,90 | 6,10 |
| Lead | 4 | 44 | 16,19,61 28,17,249,20.3 | 2,4,5 6,7,8 |
| Lead dissolved | 4 | 44 | 24,15 | 6,7 |
| Chromium | 100 | 160 | 101 | 5 |
| Zinc | 2400 | 260 | 556 | 8 |
| Zinc dissolved | 2400 | 260 | 373 | 11 |

### MW-112S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Selenium dissolved | 50 | 5 | 102 | 10 |
| Vinyl Chloride | 2 | 13 | 8/3/6/21,10 | 4,5,6,7,13 |
| Arsenic | 10 | 10 | 93,274,169 121,400,235,79,126 | 4,5,6,7,8,10,11,13 |
| Arsenic dissolved | 10 | 10 | 19,19,20,16,18,108,82 | 6,7,8,9,11,12,13 |
| Lead | 4 | 28 | 11,257,354 100 | 4,5,8,10 |
| Zinc | 2400 | 260 | 929,920,450 | 5,8,10 |
| Copper | 1000 | 20 | 418,502,200 | 5,8,10 |
| Copper dissolved | 1000 | 20 | 300,115 | 5,10 |
| Chromium | 100 | 160 | 256,140,150 | 5,8,10 |
| Trichloroethene | 5 | 200 | 24,12,10 | 7,11,13 |
| Vinyl Chloride | 2 | 13 | 3,4,17, 10 | 8,9,11,13 |

### MW-105S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Arsenic | 10 | 10 | 69,42,70 | 6,8,10 |
| Selenium | 50 | 5 | 10 ,7,7,16,17 | 2,3,4,8,10 |
| Selenium dissolved | 50 | 5 | 10,6,8,14,9,9,9 | 5,6,7,8,9,10 |
| Silver | 34 | 0.2 | .6 | 3 |
| Lead | 4 | 44 | 5,7,20,29,180 | 4,6,7,8,10 |
| Lead dissolved | 4 | 44 | 22 | 7 |
| Trichloroethene | 5 | 200 | 25,8,69 | 2,4,9 |
| Tetrachloroethane | 5 | 60 | 22,47,28,73 58,34,29 | 3,6,7,8,10,12 ,13 |
| Copper | 1000 | 20 | 118,2070 158,802,820 | 5,6,7,8,10 |
| Copper dissolved | 1000 | 20 | 31 | 12 |
| Chromium | 100 | 160 | 3480,3490 42600,776 | 5,7,8,13 |
| Chromium dissolved | 100 | 160 | 407 | 12 |
| Zinc | 2400 | 260 | 800 | 10 |
| Zinc dissolved | 2400 | 260 | 390 | 12 |

### MW-100S

| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Trichloroethene | 5 | 200 | 11,8 | 1,4 |
| Selenium | 50 | 5 | 6 | 1 |
| Arsenic | 10 | 10 | 29 | 8 |
| Copper | 1000 | 20 | 230 | 8 |
| Lead | 4 | 44 | 70 | 8 |
| Zinc | 2400 | 260 | 493 | 8 |

### MW-104S

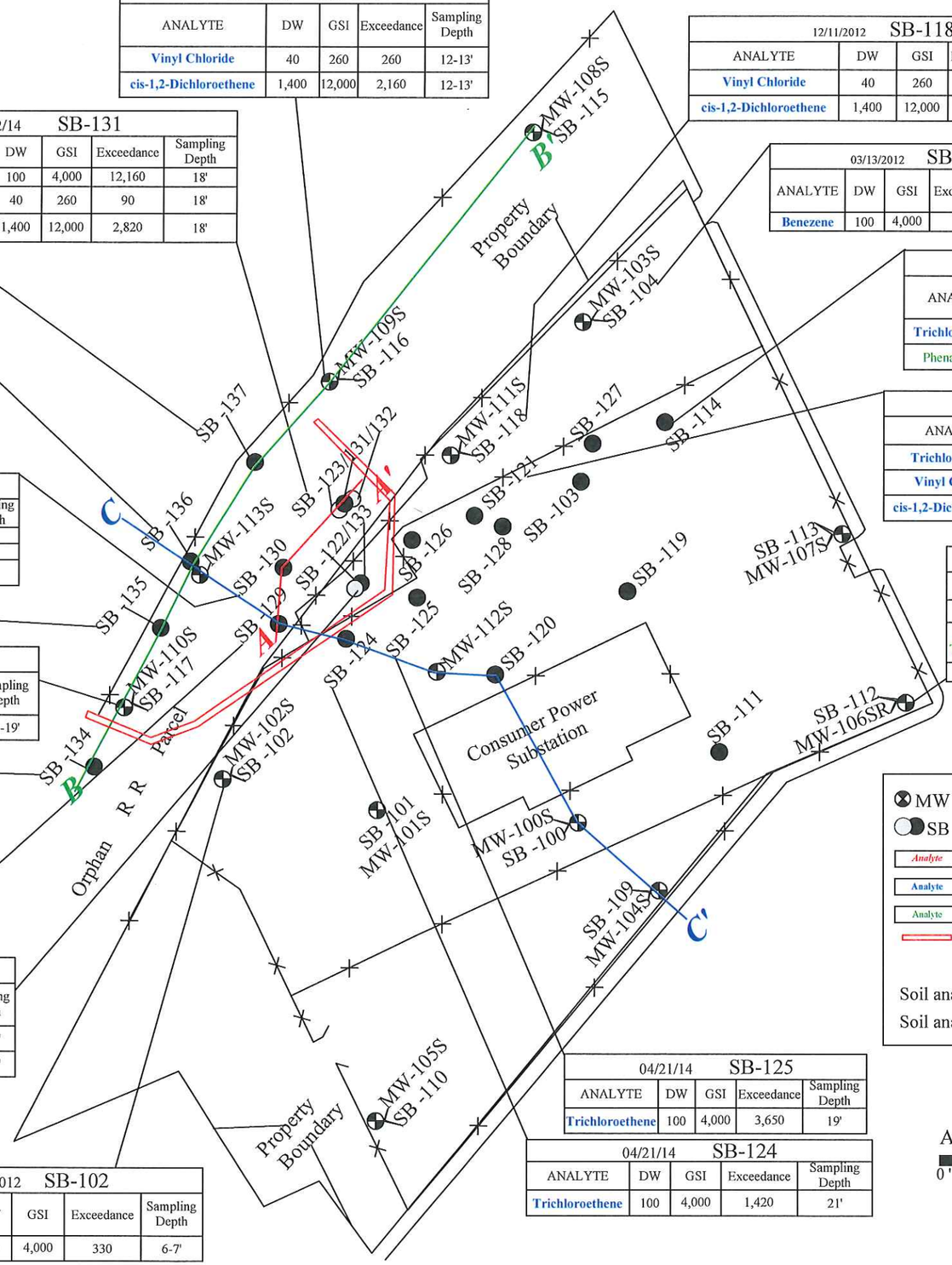
| ANALYTE | DW | GSI | Exceedance | Sampling Event |
|---|---|---|---|---|
| Copper | 1000 | 20 | 333,716,210,33 | 6,8,10,13 |
| Chromium | 1000 | 160 | 27600,503 17800,10000,465,1640 | 6,7,8,10,11 ,13 |
| Lead | 4 | 44 | 21,6,29.7 | 7,8 |
| Lead dissolved | 4 | 44 | 25 | 7 |
| Arsenic | 10 | 10 | 12,13.6 | 8,10 |
| Selenium | 50 | 5 | 15,6 | 10,11 |

| | |
|---|---|
| DATE: 2012 / 2016 | SCALE: As Shown |
| PROJECT: 11-4317-102 | FIGURE: 4 |

**Summary of Drinking Water and Groundwater to Surface Water Interface Exceedances In Groundwater 2012 / 2016**

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI


Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526




| 12/11/2012 SB-116 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Vinyl Chloride | 40 | 260 | 260 | 12-13' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 2,160 | 12-13' |

| 12/11/2012 SB-118 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Vinyl Chloride | 40 | 260 | 250 | 16-17' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 11,960 | 16-17' |

| 7/10/2014 SB-132 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 29,500 / 13,700 | 11.5-12' 14.5-15' |
| Vinyl chloride | 40 | 260 | 180 / 89 | 11.5-12' 14.5-15' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 2,200 | 11.5-12' |

| 04/22/14 SB-131 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 12,160 | 18' |
| Vinyl chloride | 40 | 260 | 90 | 18' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 2,820 | 18' |

| 03/13/2012 SB-104 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Benezene | 100 | 4,000 | 210 | 7-8' |

| 12/22/14 SB-137 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 4,250 | 18' |

| 12/22/14 SB-137 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Vinyl chloride | 40 | 260 | 56 | 20.5' |

| 12/10/2012 SB-114 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 1,220 | 20-21' |
| Phenanthrene | 56,000 | 2,100 | 2,700 | 7-8' |

| 12/22/14 SB-136 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 8,760 | 19' |

| 12/22/14 SB-136 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 9,390 | 20' |

| 4/30/2013 SB-121 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 400 | 23-24' |
| Vinyl Chloride | 40 | 260 | 110 | 23-24' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 2,970 | 23-24' |

| 04/22/14 SB-130 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 6,080 | 18' |
| Vinyl chloride | 40 | 260 | 73 | 18' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 6,380 | 18' |

| 12/06/2012 SB-112 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Naphthalene | 35,000 | 730 | 840 | 3.5-4.5' |
| 1,2,4-Trimethylbenzene | 2,100 | 570 | 600 | 3.5-4.5' |
| Vinyl Chloride | 40 | 260 | 80 | 3.5-4.5' |

| 12/22/14 SB-135 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 7890.0 | 19' |

| 12/22/14 SB-135 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 6540.0 | 21' |

| 12/11/2012 SB-117 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 5,980 | 18-19' |

| 12/22/14 SB-134 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 2,040 | 20' |

| 04/22/14 SB-129 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 6,170 | 18' |

| 4/30/2013 SB-122 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 14,400 | 15-16' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 1,600 | 15-16' |

| 7/10/2014 SB-133 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4000 | 11,680 / 10,860 7,520 | 16.5-17' 18-19' 19.5-20' |
| Vinyl Chloride | 40 | 260 | 46 | 16.5-17' |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | 1,990 | 16.5-17' |

| 3/08/2012 SB-102 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 330 | 6-7' |

| 04/21/14 SB-125 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 3,650 | 19' |

| 04/21/14 SB-124 | | | | |
|---|---|---|---|---|
| ANALYTE | DW | GSI | Exceedance | Sampling Depth |
| Trichloroethene | 100 | 4,000 | 1,420 | 21' |

## LEGEND

- MW — Monitoring Well completed by AE
- SB — Soil Borings completed by AE
- Analyte — Exceeds GSI and DW criteria
- Analyte — Exceeds DW criteria only
- Analyte — Exceeds GSI criteria only
- Approximate extent of TCE exceedances of GSI protection criteria

Soil analytical results in ug/kg (ppb)

Soil analytical results reflect sampling dates noted

Approximate Scale in Feet

0' 30' 60' 90' 120'

| SCALE: | FIGURE: |
|---|---|
| As Shown | 5 |
| DATE: 2012 - 2014 | PROJECT: 11-4317-102 |

**Summary of Drinking Water and GSI Exceedances in Soil**
**2012 - 2014**
Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

ATTACHMENTS

ATTACHMENT #1: CROSS SECTION DIAGRAMS

# Cross Section Diagram Key

| | Topsoil | Gravelly Sand | Fine to Medium Sand | Concrete | Silty Sand | Silty Clay | Sandy Clay | Silty Clay and Sand | Silty Shale |
|---|---|---|---|---|---|---|---|---|---|
| Generalized Stratigraphy | | | | | | | | | |
| Borehole Stratigraphy | | | | | | | | | |

DW Residential Drinking Water Generic Cleanup Criteria

Monitoring Wells Installed by AE

GSI Groundwater Surface Water Interface Generic Cleanup Criteria GSI criteria calculation based on 257ppm total hardness in the Flint River

Well Screen

Soil and Groundwater analytical results are expressed as defined below;

Dissolved arsenic exceedance above DW and GSI GRCCs

Dissolved copper exceedance above GSI GRCCs

Dissolved lead exceedance above DW GRCCs

Dissolved chromium exceedance above DW GRCCs

Dissolved zinc exceedance above GSI GRCCs

Dissolved selenium exceedance above GSI GRCCs

TCE exceedance above DW GRCCs

TCE exceedance above DW and GSI GRCCs

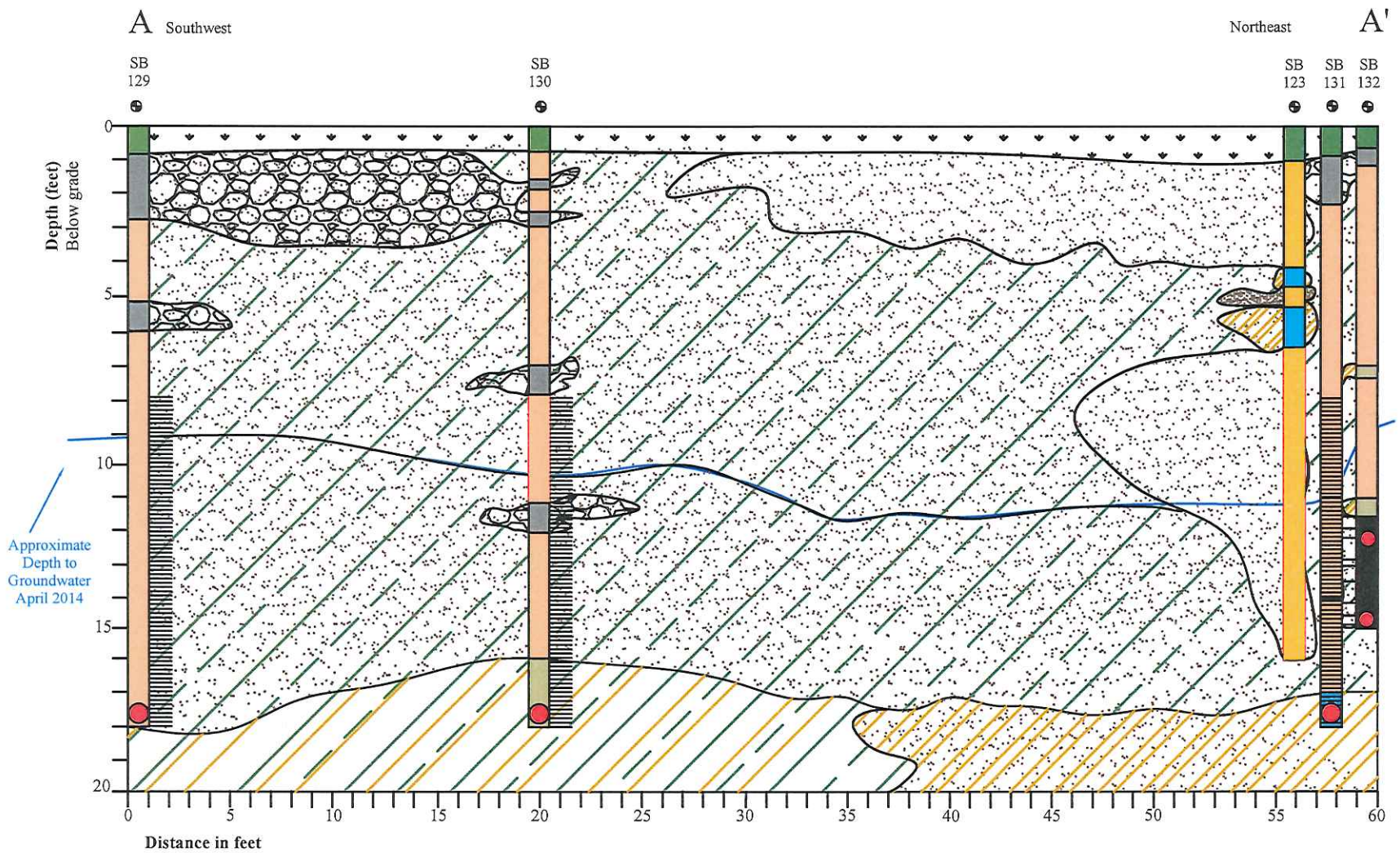
Dissolved selenium exceedance above DW and GSI GRCCs

| | |
|---|---|
| SCALE: None | Attachment: 1 |
| DATE: 2016 | PROJECT: 11-4317-102 |

***Cross Section Diagram Key***

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

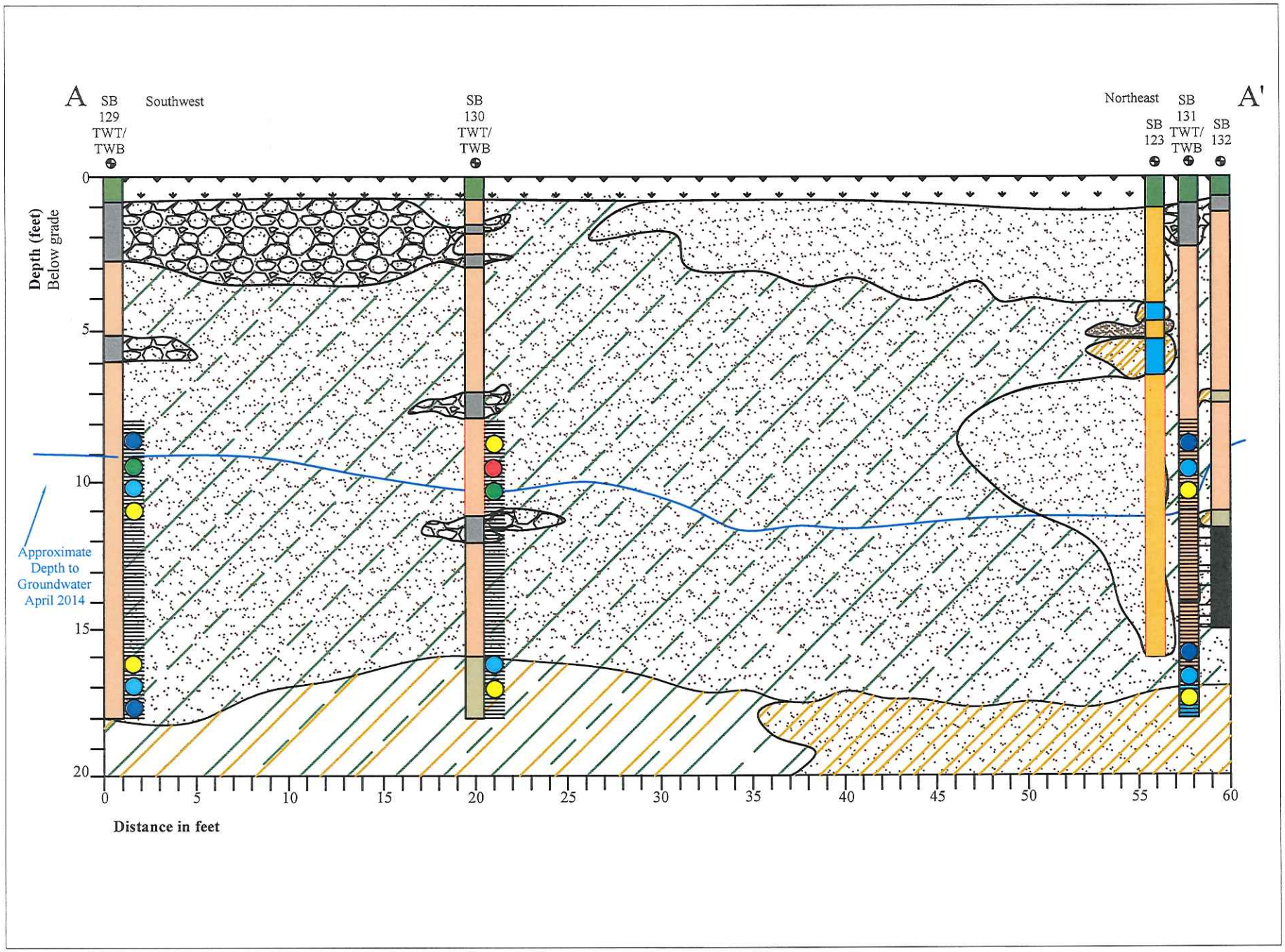



| | |
|---|---|
| SCALE: As Noted | Attachment: 1A (1) |
| DATE: 2016 | PROJECT: 11-4317-102 |

***Cross Section Diagram A - A'***
***TCE Exceedances in Soil***

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

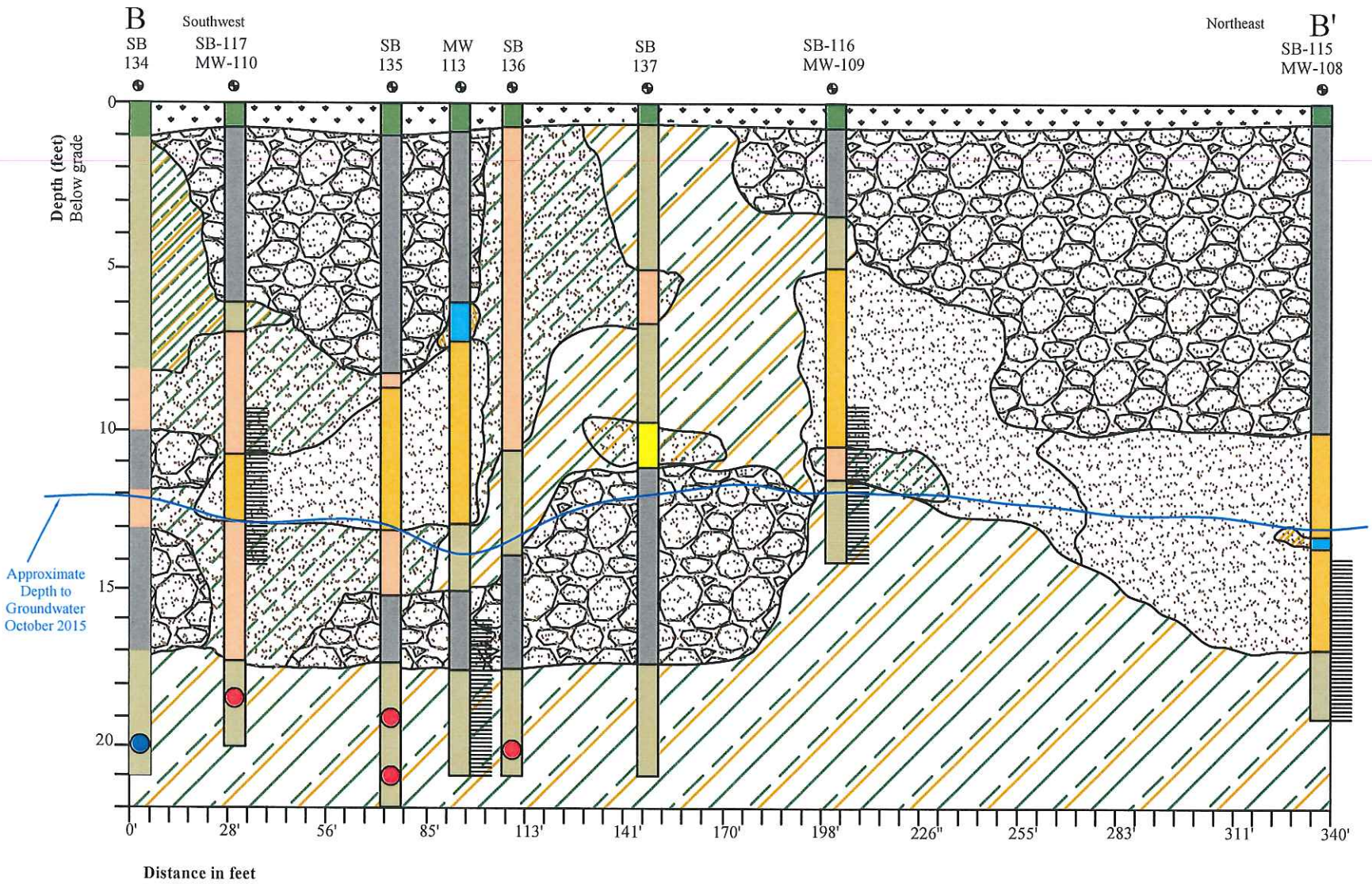
Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526




| | |
|---|---|
| SCALE: As Noted | Attachment: 1A (2) |
| DATE: 2015 | PROJECT: 11-4317-102 |

***Cross Section Diagram A - A'***
***Dissolved Metals and TCE Excedances in Groundwater***
Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

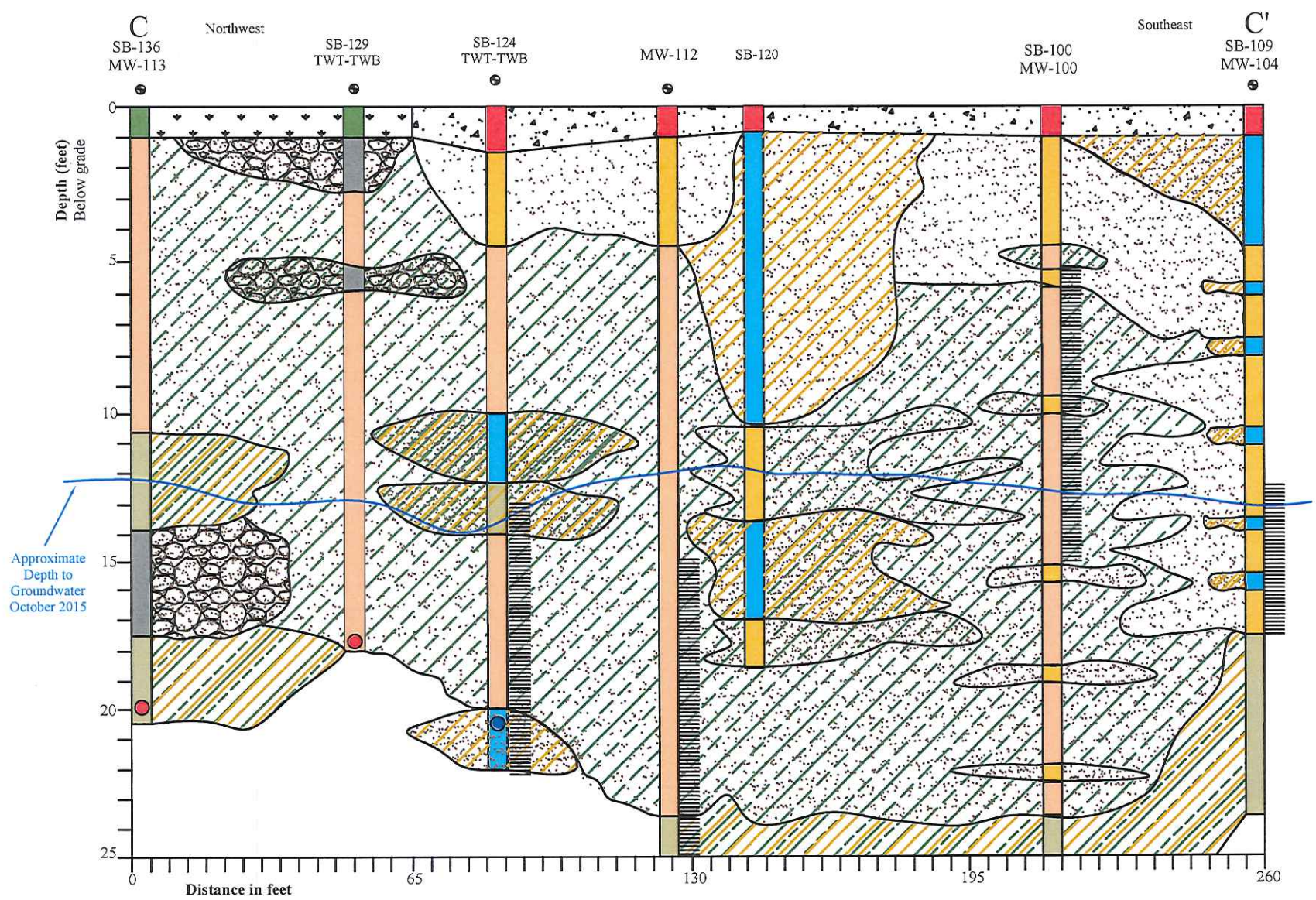



| | |
|---|---|
| SCALE: | As Noted |
| DATE: | 2015 |
| Attachment: | 1B (1) |
| PROJECT: | 11-4317-102 |

***Cross Section Diagram B - B'***
***TCE Exceedances in Soil***

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

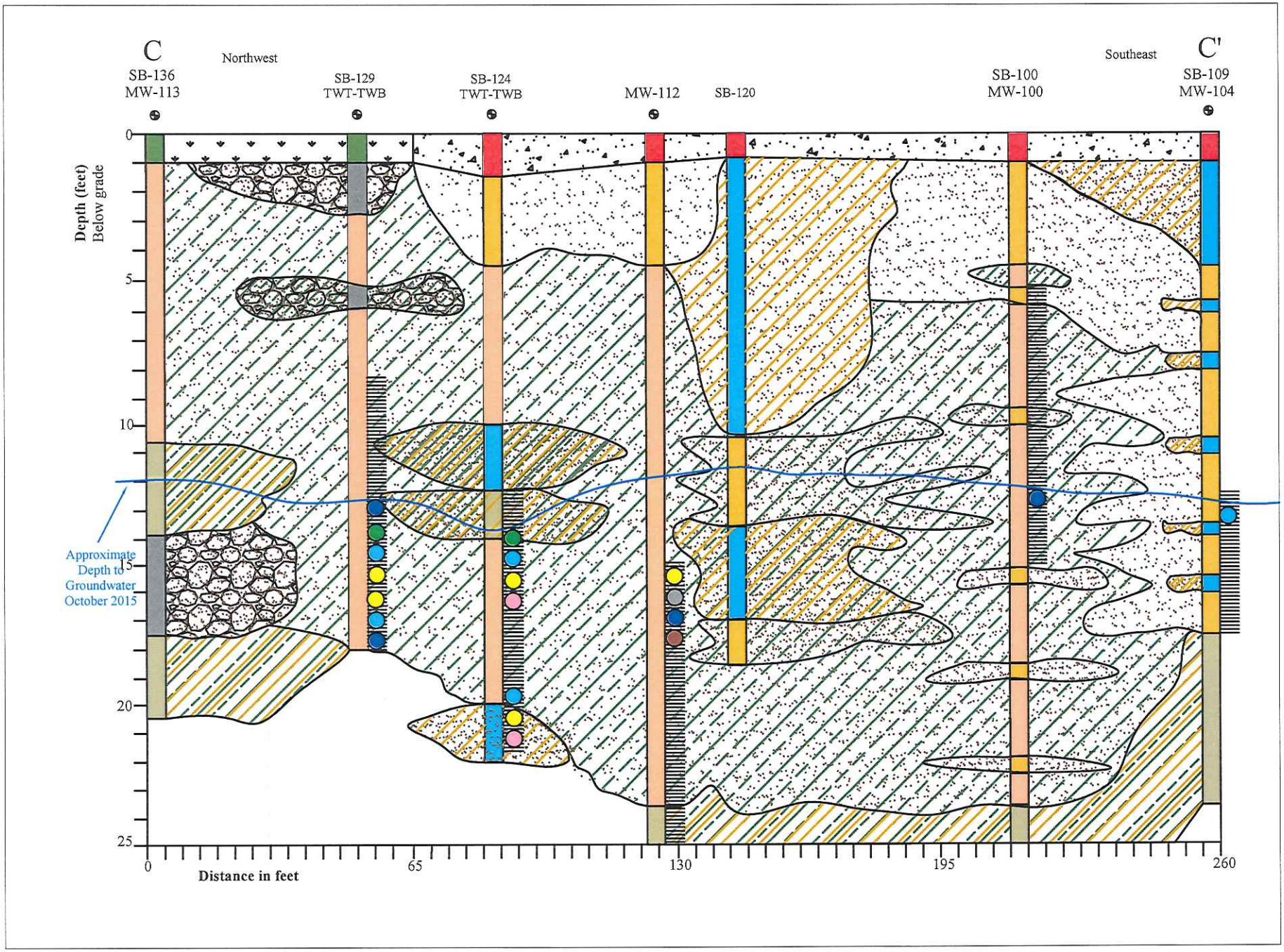



| | |
|---|---|
| SCALE: | As Noted |
| Attachment: | 1C (1) |
| DATE: | 2016 |
| PROJECT: | 11-4317-102 |

***Cross Section Diagram C - C'***
***TCE Exceedances in Soil***

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526




| SCALE: | Attachment: |
|---|---|
| As Noted | 1C (2) |

| DATE: | PROJECT: |
|---|---|
| 2016 | 11-4317-102 |

***Cross Section Diagram C - C'***
***Dissolved Metals and TCE***
***Exceedances in Groundwater***
Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

# ATTACHMENT #2: GROUNDWATER ANALYTICAL TABLES

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105SR | MW-106S | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | SB124-TWT | SB125-TWT | SB127-TWT | SB129-TWT | SB130-TWT | SB131-TWT | SB124-TWB | SB125-TWB | SB127-TWB | SB129-TWB | SB130-TWB | SB131-TWB | Dup1 | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | | 4/3/14 | 4/3/14 | 3/29/14 | 4/3/14 | 4/3/14 | 4/3/14 | 4/3/14 | 3/29/14 | 3/29/14 | 3/29/14 | 3/29/14 | 4/3/14 | 3/29/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 3/29/14 | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10.00 | 10.00 | | | | | 11.00 | | | 4.00 | | | | 21.00 | | 19.00 | | | 17.00 | 57.00 | 4.00 | 3.00 | 2.00 | 3.00 | 30.00 | 38.00 | | | | | | |
| Chromium (dissolved) | 100.00 | 160.00 | G | | | 35.00 | | 22.00 | 18.00 | | | | | 7.00 | 12.00 | | 128.00 | 13.00 | | | 147.00 | 64.00 | 25.00 | 16.00 | | 17.00 | 89.00 | 19.00 | 33.00 | 14.00 | | |
| Copper (dissolved) | 1,000.00 | 20.00 | G | | | | | | | | | | | 28.00 | | | | 21.00 | | 5.00 | 22.00 | 140.00 | 28.00 | 42.00 | | 12.00 | 24.00 | 94.00 | 144.00 | | | |
| Lead (dissolved) | 4.00 | 28.00 | G | | | | | | | | | | | 24.00 | | | | 29.00 | | 5.00 | 23.00 | 208.00 | 16.00 | 47.00 | 1.00 | 19.00 | 11.00 | 31.00 | 14.00 | | | |
| Selenium (dissolved) | 50.00 | 5.00 | | | | | | | 6.00 | 5.00 | | 5.00 | | | | | | 12.00 | | | | 4.00 | | 12.00 | | | | 5.00 | 3.00 | | | |
| Zinc (dissolved) | 2,400.00 | 26.00 | G | | 97.00 | | 23.00 | 5.00 | | 62.00 | 5.00 | 16.00 | 18.00 | 81.00 | 21.00 | 9.00 | 24.00 | 311.00 | 167.00 | 82.00 | 323.00 | 326.00 | 103.00 | 241.00 | 400.00 | 166.00 | 68.00 | 241.00 | 191.00 | 12.00 | | |

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105SR | MW-106S | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | SB124-TWT | SB125-TWT | SB127-TWT | SB129-TWT | SB130-TWT | SB131-TWT | SB124-TWB | SB125-TWB | SB127-TWB | SB129-TWB | SB130-TWB | SB131-TWB | Dup1 | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | | 1.13 | 2.36 | | 0.88 | 1.82 | 3.58 | 3.82 | | 1.22 | 2.11 | 0.72 | 5.17 | 0.93 | 5.7 | | 9.1 | 5.7 | | | 10.3 | 66 | 25.8 | 5.9 | | 5.8 | 1.06 | | |
| Methyl Iodide | NC | NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | | | | | | | | | | | | | | | | | | | | | | 0.86 | 0.4 | | | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | | 0.73 | 0.86 | | 0.41 | 0.83 | 0.78 | 0.94 | | | | | 2.98 | | | | | | | | | 11.6 | 8.6 | | | | | | |
| Chloromethane | 260 | NC | | | | | | | | | | | | | | | | | | | | | | 0.33 | | 0.61 | | | | | | |
| Vinyl Chloride | 2.0 | 13 | | | | | | | | | 0.64 | | 18 | | 4 | 6 | 0.45 | | | 5 | | | 2 | | | 2 | | | 2 | 4 | | |
| Chloroethane | 430 | 1,100 | | | | | | | | | | | | | 0.6 | 1.13 | | | | 1.07 | | | | | | 0.77 | | | | | | |
| trichlorofluoromethane | 2,600 | NA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | | | | | | | | | | 4 | | 1 | 0.40 | | | | 1 | | | | | | 0.81 | | | | 1 | | |
| Methylene Chloride | 5.0 | 1,500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | | | | | | | | | | 0.92 | | 0.24 | 0.23 | | | | | | | | | | | | | 0.28 | 0.26 | | |
| 1,1-Dichloroethane | 880 | 740 | | | | | | | | | 0.21 | | 3.00 | | 2 | 0.69 | 2.00 | | | | | | 3.00 | | | | | | 2.00 | 2.00 | | |
| cis-1,2-Dichloroethene | 70 | 620 | | | | | | | | | 3 | | 59 | | 46 | 2 | 26 | | | 0.042 | 0.69 | 2 | 21 | | | 0.36 | 0.93 | 3.00 | 21.00 | 43.00 | | |
| Tetrahydrofuran | 95 | 11,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloroform | 80 | 350 | | | | | | 3.00 | | | | 0.35 | 0.35 | | 0.29 | | | | | | | | 0.042 | | | | | | 0.41 | 0.29 | | |
| 1,1,1-Trichloroethane | 200 | 89 | | | | | | | | | | | 0.48 | | 0.75 | | | | | | | | 0.72 | | | | | | 0.71 | 0.73 | | |
| 4-Methyl-2-pentanone (M | 1800 | 1000000000 | | | | | | | | | | | | | | 0.67 | | | | 0.390 | | | | | 0.590 | 2.190 | | | | | | |
| 2-Hexanone | 1000 | 1000000000 | | | | | | | | | | | | | | | | | | 0.750 | | | | 0.210 | 2.170 | 4.570 | | | | | | |
| Carbontetrachloride | 5.0 | 45 | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Benzene | 5.0 | 200 | | | | | | | | | 0.25 | | | | | | | | | 0.43 | 0.12 | | | 0.17 | 0.21 | 0.81 | 0.21 | 0.16 | 0.23 | | | |
| Bromodichloromethane | 80.0 | NC | | | | | | 0.89 | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichloroethene | 5.0 | 200 | | | 3 | 2 | | | | | 4 | | 102 | | 92 | 3 | 23 | | | | 8 | 3 | 81 | 0.55 | | | 8 | 5 | 78 | 86 | | |
| Toluene | 790 | 270 | | | | | | | | 0.35 | 0.63 | | | | | | | 0.23 | | 0.39 | 0.20 | | | 0.38 | 0.30 | 1.00 | 0.35 | 0.24 | 0.44 | | | |
| Tetrachloroethene | 5.0 | 60 | | | | | | | 47 | | | | | | | | | | | | | | 0.180 | | | | | | 0.17 | | | |
| Chlorobenzene | 100 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Styrene | 100 | 80 | | | | | | | | | | | | | | | | | | 0.43 | | | | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | | | | | | | | | | | | | | | | | | | | | 0.12 | 0.11 | 0.31 | | | 0.11 | | | |
| Total Xylenes | 280 | 41 | | | | | | | | | | | | | | | | | | | | | | | | 0.79 | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | | | | | | | | | | | | | | | | | | | | | | 0.22 | 0.31 | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | | | 0.07 | 0.07 | | | | | | | | | | | | | | 0.20 | 0.18 | | | | | | |
| Naphthalene | 520 | 11 | | | | | | | | | | | | | | | | 0.34 | | 0.31 | | | | 0.75 | 1.68 | 0.55 | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | | | | | | | | | | | | | | | 0.51 | | 0.40 | | | | 0.47 | 0.88 | 0.47 | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds residential and non-residential DW criteria |
| X | Exceeds GSI criteria G |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105SR | MW-106S | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Dup1 | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 6/25/14 | 6/25/14 | 6/25/14 | 6/26/14 | 6/25/14 | 6/26/14 | 6/25/14 | 6/25/14 | 6/26/14 | 6/26/14 | 6/26/14 | 6/26/14 | 6/25/14 | 6/26/14 | | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10.00 | 10.00 | | | | | | | | | | | | | | 19 | | | | |
| Chromium (dissolved) | 100.00 | 160.00 | G | | | 51 | | | | | | | | | | | 152 | | | |
| Copper (dissolved) | 1,000.00 | 20.00 | G | | | | | | | | | | | | | | 4 | | | |
| Lead (dissolved) | 4.00 | 28.00 | G | | | | | 25 | 22 | 23 | | | | 15 | | | 5 | | | |
| Selenium (dissolved) | 50.00 | 5.00 | | | | 66 | | | 8 | | | 6 | | | | | | | | |
| Zinc (dissolved) | 2,400.00 | 26.00 | G | 5 | 11 | | 10 | | | | 5 | 7 | | | | 8 | 13 | | | |

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105SR | MW-106S | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Dup1 | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 6/25/14 | 6/25/14 | 6/25/14 | 6/26/14 | 6/25/14 | 6/26/14 | 6/25/14 | 6/25/14 | 6/26/14 | 6/26/14 | 6/26/14 | 6/26/14 | 6/25/14 | 6/26/14 | | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | 1.74 | 1.45 | 2.04 | 2.67 | 1.55 | 1.86 | 1.59 | 2.82 | 1.32 | 1.47 | 1.29 | 1.48 | 4.93 | 1.32 | | | |
| Methyl iodide | NC | NC | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | | | | | | | | | | | | | 0.42 | 0.36 | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | | | | | | | | 0.4 | 0.65 | 0.29 | | 0.29 | 1.99 | | | | |
| Chloromethane | 260 | NC | | 0.32 | | | | 0.34 | | | | | | | | | 0.29 | | | |
| Vinyl Chloride | 2.0 | 13 | | | | | | | | | | | 10 | | | 21 | 2 | | | |
| Chloroethane | 430 | 1,100 | | | | | | | | | | | | | | 2.9 | | | | |
| trichlorofluoromethane | 2,600 | NA | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | | | | | | | | | | 4 | | | 2.00 | 0.39 | | | |
| Methylene Chloride | 5.0 | 1,500 | | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | | | | | | | | | | 0.7 | | | 0.64 | 0.24 | | | |
| 1,1-Dichloroethane | 880 | 740 | | | | | | | | | | | | | | 1.00 | 3.00 | | | |
| cis-1,2-Dichloroethene | 70 | 620 | | 0.62 | | | | | | | | | 3 | | | 7 | 59 | | | |
| Tetrahydrofuran | 95 | 11,000 | | | | | | | | | | | 70.0 | | | | | | | |
| Chloroform | 80 | 350 | | | | | | 5.00 | | 0.22 | | 0.5 | 0.37 | | | | 0.320 | | | |
| 1,1,1-Trichloroethane | 200 | 89 | | | | | | | | | | | 0.50 | | | | 1.00 | | | |
| 4-Methyl-2-pentanone (M | 1800 | 1000000000 | | | | | | | | | | | | | | 0.83 | | | | |
| 2-Hexanone | 1000 | 1000000000 | | | | | | | | | | | | | | 1.46 | | | | |
| Carbontetrachloride | 5.0 | 45 | | | | | | | | | | 2 | | | | | | | | |
| Benzene | 5.0 | 200 | | | | | | | | | | | | | | | | | | |
| Bromodichloromethane | 80.0 | NC | | | | | | 0.82 | | | | | | | | | | | | |
| Trichloroethene | 5.0 | 200 | | 5 | 1 | 3 | | | 26 | | 2 | | 104 | | 2 | 24 | 69 | | | |
| Toluene | 790 | 270 | | | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 5.0 | 60 | | | | | | | | | | | | | | | | | | |
| Chlorobenzene | 100 | 25 | | | | | | | | | | | | | | | | | | |
| Styrene | 100 | 80 | | | | | | | | | | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | | | | | | | | | | | | | | | | | |
| Total Xylenes | 280 | 41 | | | | | | | | | | | | | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | | | | | | | | | | | | | |
| Naphthalene | 520 | 11 | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | | | | | | | | | | | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds residential and non-residential DW criteria |
| X | Exceeds GSI criteria G |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Dup1 | Dup2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 12/22/14 | 12/22/14 | 11/18/14 | 12/22/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/20/14 | 11/20/14 | 11/18/14 | 11/20/14 | 11/18/14 | 11/20/14 | 11/18/14 | 11/20/14 |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10.00 | 10.00 | | na | | | | | | | | | | 17 | | 20 | | | |
| Arsenic | 10.00 | 10.00 | | 29 | 4 | 12 | na | 12 | 42 | 13 | 2 | 5 | 16 | 55 | 9 | 400 | 40 | 11.00 | 5.00 |
| Cadmium (dissolved) | 5.00 | 4.50 | GX | na | | na | na | na | na | na | na | na | na | na | na | na | na | na | na |
| Cadmium | 5.00 | 4.50 | GX | 6.90 | | na | na | na | na | na | na | na | na | na | na | na | na | na | na |
| Chromium (dissolved) | 100.00 | 1,600.00 | G | na | na | 7 | na | 9 | 6 | 15 | | | | 7 | 7 | | | 10 | |
| Chromium | 100.00 | 1,600.00 | GX | na | na | 62 | na | 17,800 | 42,600 | 68,000 | 14 | 19 | 16 | 69 | 237 | 140 | 822 | 14,000 | 11 |
| Copper (dissolved) | 1,000.00 | 20.00 | G | na | | | na | | | | | | | | | | | | |
| Copper | 1,000.00 | 20.00 | GX | 230 | 32 | 22 | na | 716 | 802 | 402 | 29 | 31 | 26 | 736 | 22 | 502 | 300 | 583 | 21 |
| Lead (dissolved) | 4.00 | 44.00 | G | na | | | na | | | | | | | | | | | | |
| Lead | 4.00 | 44.00 | GX | 70 | 21 | 14 | na | 6 | 29 | 44 | 6 | 15 | 32 | 249 | 20 | 354 | 289 | 5 | 23 |
| Selenium (dissolved) | 50.00 | 5.00 | | na | | | na | | 14 | 5 | | | | | | | | | |
| Selenium | 50.00 | 5.00 | | | | | na | | 16 | 5 | | | | | | | | 6 | |
| Zinc (dissolved) | 2,400.00 | 260.00 | G | na | 66 | | na | 28 | | 15 | 9 | 13 | 11 | 25 | 34 | 9 | 23 | 36 | 43 |
| Zinc | 2,400.00 | 260.00 | GX | 493 | 74 | 33 | na | 29 | 52 | 210 | 27 | 222 | 47 | 556 | 36 | 920 | 504 | 23 | 75 |

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Dup1 | Dup2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 12/22/14 | 12/22/14 | 11/18/14 | 12/22/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/20/14 | 11/20/14 | 11/18/14 | 11/20/14 | 11/18/14 | 11/20/14 | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | 1.83 | 2.77 | | na | | | | | | | | | 42 | | | |
| Methyl iodide | NC | NC | | | | | na | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | 0.29 | | | na | 0.70 | | | | | | | | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | 0.55 | | | na | | | | | | | | | 24 | | | |
| Chloromethane | 260 | NC | | | | | na | 0.27 | 0.35 | | 0.33 | | 0.53 | 0.58 | 0.88 | | 0.48 | 0.58 | |
| Vinyl Chloride | 2.0 | 13 | | | | | na | | | | 0.58 | | 12 | | | 3 | | | |
| Chloroethane | 430 | 1,100 | | | | | na | | | | | | | | | 0.88 | | | |
| trichlorofluoromethane | 2,600 | NA | | | | | na | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | | | | na | | | | | | 5 | | | | | | |
| Methylene Chloride | 5.0 | 1,500 | | | | | na | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | | | | na | | | | | | 0.9 | | | | | | |
| 1,1-Dichloroethane | 880 | 740 | | | | | na | | | | 0.71 | | 1 | | | 0.76 | 0.47 | | |
| cis-1,2-Dichloroethene | 70 | 620 | | 1 | | | na | | | | 2 | 0.57 | 45 | | 1 | 3 | 9 | | 0.56 |
| Tetrahydrofuran | 95 | 11,000 | | | | | na | | | | | | | | | | | | |
| Chloroform | 80 | 350 | | | | | na | 3 | | | | 2 | 0.18 | | | | | 3 | 2 |
| 1,1,1-Trichloroethane | 200 | 89 | | | | | na | | | | | | 0.37 | | | | 0.29 | | |
| 4-Methyl-2-pentanone (MIBK) | 1800 | 1000000000 | | | | | na | | | | | | | | | 3.88 | | | |
| 2-Hexanone | 1000 | 1000000000 | | | | | na | | | | | | | | | 12 | | | |
| Carbontetrachloride | 5.0 | 45 | | | | | na | | | | | 2 | | | | | | | 2 |
| Benzene | 5.0 | 200 | | | | | na | | | | | | | 0.12 | | 0.29 | | | |
| Bromodichloromethane | 80.0 | NC | | | | | na | 0.54 | | | | | | | | | | 0.46 | |
| Trichloroethene | 5.0 | 200 | | 2 | 4 | 0.36 | na | | | | 5 | | 160 | | 7 | | 61 | 0.3 | |
| Toluene | 790 | 270 | | | | | na | | | | | | | 0.22 | | 0.51 | | | |
| Tetrachloroethene | 5.0 | 60 | | | 0.23 | | na | | 73 | | | | 0.2 | | | | 0.20 | | |
| Chlorobenzene | 100 | 25 | | | | | na | | | | | | | | | | | | |
| Styrene | 100 | 80 | | | | | na | | | | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | | | | na | | | | | | | | | 0.17 | | | |
| Total Xylenes | 280 | 41 | | | | | na | | | | | | | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | | | | na | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | | | | na | | | | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | na | | | | | | | | | | | | |
| Naphthalene | 520 | 11 | | | | | na | | | | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | | | | na | | | | | | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria G = |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |
| na | Sample not analyzed for this constituent |

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105SR | MW-106S | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Dup1 | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | DRY | 4/28/15 | 4/28/15 | 4/30/15 | 4/28/15 | 4/28/15 | 4/28/15 | 4/28/15 | 4/30/15 | 4/30/15 | 4/30/15 | 4/30/15 | 4/28/15 | 4/30/15 | 4/28/15 | 4/30/15 | |
| **ANALYTE (mg/L)** | **DW** | **GSI** | | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10 | 10 | | | | | 6 | | | | | | | | | 16 | | | 6 | |
| Arsenic | 10 | 10 | | | 4 | | 23 | | | 5 | | | | 2 | 6 | 277 | 6 | | 20 | |
| Chromium (dissolved) | 100 | 160 | G | | | 22 | | 5 | 8 | | | | | | | | | 10 | | |
| Chromium | 100 | 160 | G | | 17 | 24 | | 1590 | 829 | 58300 | | | | | 29 | 9 | 73 | 16 | | |
| Copper (dissolved) | 1000 | 20 | G | | | | | | | | | | | | | | | | | |
| Copper | 1000 | 20 | G | | 31 | 9 | | 40 | 13 | 306 | | | | | | 14 | 12 | | | |
| Lead (dissolved) | 4 | 44 | G | | | | | | | | | | | | | | | | | |
| Lead | 4 | 44 | G | | 24 | | | | | 26 | | | | | | 9 | 11 | | | |
| Selenium (dissolved) | 50 | 5 | | | | | | | 9 | | | | | | | | | | | |
| Selenium | 50 | 5 | | | | | | | 9 | | | | | | | | | | | |
| Zinc (dissolved) | 2400 | 260 | G | | 9 | | | 8 | | 120 | | 6 | | | 9 | 39 | 22 | 11 | | |
| Zinc | 2400 | 260 | G | | 9 | | | 8 | | 133 | | 6 | | | 9 | 39 | 22 | 11 | | |

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105SR | MW-106S | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Dup1 | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | DRY | 4/28/15 | 4/28/15 | 4/30/15 | 4/28/15 | 4/28/15 | 4/28/15 | 4/28/15 | 4/30/15 | 4/30/15 | 4/30/15 | 4/30/15 | 4/28/15 | 4/30/15 | 4/28/15 | 4/30/15 | |
| **ANALYTE (ug/L)** | **DW** | **GSI** | | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | | | | | | | | | | | | | 10 | | | | |
| Methyl iodide | NC | NC | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | | | | | | | 0.17 | | | | | | 0.16 | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | | | | | | | | | | | | | 6.6 | | | | |
| Chloromethane | 260 | NC | | | 4 | 6 | 2 | 6 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 4 | 2 | | 3 | |
| Vinyl Chloride | 2.0 | 13 | | | | | | | | | 0.6 | | 21 | | 4 | 4 | 2 | | | |
| Chloroethane | 430 | 1,100 | | | | | 0.7 | | | | | | | | | 5 | | | 0.77 | |
| trichlorofluoromethane | 2,600 | NA | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | | | | | | | | | | 4 | | 0.88 | | | | | |
| Methylene Chloride | 5.0 | 1,500 | | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | | | | | | | | | | 1 | | 0.99 | | 0.26 | | | |
| 1,1-Dichloroethane | 880 | 740 | | | | | | | | | 0.56 | | 2 | | 2 | 0.52 | 3 | | | |
| cis-1,2-Dichloroethene | 70 | 620 | | | | | | | | | 2 | | 51 | | 48 | 0.66 | 19 | | | |
| Tetrahydrofuran | 95 | 11,000 | | | | | | | | | | | | | | | | | | |
| Chloroform | 80 | 350 | | | | | | 1 | | 0.7 | | 1 | 0.28 | | 0.29 | 0.21 | 0.19 | | | |
| 1,1,1-Trichloroethane | 200 | 89 | | | | | | | | | | | 0.51 | | 0.36 | | | | | |
| 2-Hexanone | 1000 | 1E+09 | | | | | | | | | | | | | | 3 | | | | |
| Benzene | 5.0 | 200 | | | 0.26 | | 0.23 | | | | | | | | | | | | 0.25 | |
| Trichloroethene | 5.0 | 200 | | | 2 | 0.51 | | | | | 2 | | 138 | | 78 | 0.62 | 36 | | | |
| Tetrachloroethene | 5.0 | 60 | | | | | | | 69 | | | | | | | | | | | |
| Chlorobenzene | 100 | 25 | | | | | | | | | | | | | | | | | 0.17 | |
| Styrene | 100 | 80 | | | | | 0.15 | | | | | | | | | | | | 0.21 | |
| Ethylbenzene | ? | ? | | | | | | | | | | | | | | | | | | |
| Total Xylenes | 280 | 41 | | | | | | | | | | | | | | | | | | |
| 1,2 -Dichlorobenzene | ? | ? | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | | | | | | | | | | | | | |
| Naphthalene | 520 | 11 | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | | | | | | | | | | | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria G |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | DRY | 10/26/15 | 10/26/15 | 10/27/15 | 10/26/15 | 10/26/15 | 10/26/15 | 10/26/15 | 10/27/15 | 10/27/15 | 10/27/15 | 10/27/15 | 10/26/15 | 10/27/15 | 10/26/15 | 10/26/15 |
| **ANALYTE (ug/L)** | **DW** | GSI | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10 | 10 | | DRY | | | 4 | | | | | | | 3.31 | 0.51 | 4 | 1.09 | | |
| Arsenic | 10 | 10 | | DRY | 4.3 | **20** | **140** | **13.6** | **70** | **53** | **68** | **18.4** | **40** | **30** | **60** | **235** | **30** | | |
| Chromium (dissolved) | 100 | 160 | G | DRY | 2.39 | 7.1 | 0.51 | | 23 | **128** | | 0.67 | 0.5 | 0.66 | 4.35 | 0.57 | 0.76 | | |
| Chromium | 100 | 160 | G | DRY | 49.1 | 90 | **120** | **10,000** | 16.2 | **446,000** | 29.5 | 70 | 70 | 16.4 | **1,140** | **150** | **220** | | |
| Copper (dissolved) | 1000 | 20 | G | DRY | | | | 1.04 | 1.89 | 1.5 | 4.88 | 2.28 | 7.11 | 12 | 2.85 | 115 | 3.13 | | |
| Copper | 1000 | 20 | G | DRY | 14.42 | 37.44 | 160 | 210 | 820 | **2,760** | 70 | 90 | 90 | 90 | 70 | 200 | 80 | | |
| Lead (dissolved) | 4 | 44 | G | DRY | | | | 1.57 | | 1.11 | | | | | | 1.27 | | | |
| Lead | 4 | 44 | G | DRY | **7.61** | **20.45** | **80** | **29.78** | **180** | **300** | **16.86** | **90** | **70** | **20.3** | **40** | **100** | **50** | | |
| Selenium (dissolved) | 50 | 5 | | DRY | | 1.3 | | 1.9 | 9.9 | 4.6 | 2.2 | 1.4 | 2 | ***1.2*** | | **102** | | | |
| Selenium | 50 | 5 | | DRY | 12 | 16 | | 15 | 17 | | | | | | ***16*** | | | | |
| Zinc (dissolved) | 2400 | 260 | G | DRY | 35 | 111 | 12 | 42 | 24 | 22 | 17 | 16 | 15 | 19 | 34 | 101 | 84 | | |
| Zinc | 2400 | 260 | G | DRY | 40.3 | 100 | 410 | 160 | 800 | 1,600 | 110 | 350 | 230 | 70 | 140 | 450 | 170 | | |

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | DRY | 10/26/15 | 10/26/15 | 10/27/15 | 10/26/15 | 10/26/15 | 10/26/15 | 10/26/15 | 10/27/15 | 10/27/15 | 10/27/15 | 10/27/15 | 10/26/15 | 10/27/15 | 10/26/15 | 10/26/15 |
| **ANALYTE (ug/L)** | **DW** | GSI | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | DRY | | | | | | | | | | | | | | | |
| Methyl iodide | NC | NC | | DRY | | | | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | DRY | | | | | | | | | | | | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | DRY | | | 1.74 | | | | | | | | | | | 0.82 | 0.79 |
| Chloromethane | 260 | NC | | DRY | | | | | | | | | | | | | | | |
| Vinyl Chloride | 2.0 | 13 | | DRY | | | | | | | | | **20** | | **97** | | | | |
| Chloroethane | 430 | 1,100 | | DRY | | | | | | | | | | | | | | | |
| trichlorofluoromethane | 2,600 | NA | | DRY | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | DRY | | | | | | | | | 5.3 | | 4 | 0.76 | | | |
| Methylene Chloride | 5.0 | 1,500 | | DRY | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | DRY | | | | | | | | | | | 1 | | 0.27 | | |
| 1,1-Dichloroethane | 880 | 740 | | DRY | | | | | | | | | 3.3 | | 2 | | 1 | | |
| cis-1,2-Dichloroethene | 70 | 620 | | DRY | | | | | | | 0.42 | 0.66 | **80** | | 42 | 1 | 23 | | |
| Tetrahydrofuran | 95 | 11,000 | | DRY | | | | | | | | | | | | | | | |
| Chloroform | 80 | 350 | | DRY | | | | 2 | | | | 3 | | | | | | | |
| 1,1,1-Trichloroethane | 200 | 89 | | DRY | | | | | | | | | | | 0.33 | | 0.45 | | |
| 4-Methyl-2-pentanone (MIBK) | 1800 | 1E+09 | | DRY | | | | | | | | | | | | 1.09 | | | |
| 2-Hexanone | 1000 | 1E+09 | | DRY | | | | | | | | | | | | 1.64 | | | |
| Carbontetrachloride | 5.0 | 45 | | DRY | | | | | | | | 3 | | | | | | | |
| Benzene | 5.0 | 200 | | DRY | | | 0.21 | | 0.26 | 0.22 | | | | | | 0.2 | | | |
| Bromodichloromethane | 80.0 | NC | | DRY | | | | 0.65 | | | | | | | | | | | |
| Trichloroethene | 5.0 | 200 | | DRY | 3 | 0.68 | | 0.68 | | | 2 | 0.33 | **200** | | **92** | | **67** | | |
| Toluene | 790 | 270 | | DRY | | | | | 0.58 | 0.4 | 0.31 | | | | | 0.37 | | | |
| Tetrachloroethene | 5.0 | 60 | | DRY | | | | | **58** | | | | | | | | | | |
| Chlorobenzene | 100 | 25 | | DRY | | | | | | | | | | | | | | | |
| Styrene | 100 | 80 | | DRY | | | | | | | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | DRY | | | | | | | | | | | | | | | |
| Total Xylenes | 280 | 41 | | DRY | | | | | | | | | | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | DRY | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | DRY | | | | | | | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | DRY | | | | | | | | | | | | | | | |
| Naphthalene | 520 | 11 | | DRY | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | DRY | | | | | | | | | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990
**As Erronously Labeled in May 23, 2016 Laboratory Report**

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | MW-112 | MW-113 | | | | | MW-120 | | | | | | | | |
| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank | Trip Blank | Field Blank | Dup1 | Trip Blank | Field Blank | Dup2 | Dup3 |
| | Date Collected | | | 5/11/16 | 5/11/16 | NS | 6/8/16 | 6/1/16 | NS | 5/11/16 | 5/11/16 | 6/1/16 | 6/1/16 | 6/1/16 | 6/8/16 | 5/11/16 | 6/1/16 | 5/11/16 | 5/11/16 | 6/1/16 | 6/1/16 | 6/1/16 | 6/8/16 | 6/8/16 | 6/8/16 | 6/8/16 |
| **ANALYTE (ug/L)** | **DW** | **GSI** | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10 | 10 | | | | NS | 6 | 1.65 | NS | | | | 0.65 | 1.21 | 0.55 | 18 | 2.08 | | | | | | | | | |
| Arsenic | 10 | 10 | | | 3 | NS | 22 | 1.62 | NS | 3 | | 0.96 | 5 | 3 | 1 | 79 | 9 | | | | | | | | | |
| Chromium (dissolved) | 100 | 160 | G | | | NS | 1.16 | 1.19 | NS | | | 1.42 | 1.17 | 1.77 | 3.33 | | 1.73 | | | | | | | | | |
| Chromium (total) | 100 | 160 | G | 5 | 13 | NS | 1 | 465 | NS | 77 | 3 | 1.91 | 3.38 | 1.3 | 4 | | 4.86 | | | | | | | | | |
| Chromium VI (dissolved) | 100 | 160 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Chromium VI (total) | 100 | 160 | | NA | NA | NS | NA | | NS | NA | | | | NA | | NA | NA | | | | | | | | | |
| Copper (dissolved) | 1000 | 20 | G | | | NS | 2.02 | 0.51 | NS | | | 2.32 | 6 | 1.49 | 1.25 | | 0.73 | | | | | | | | | |
| Copper | 1000 | 20 | G | 4 | 7 | NS | 0.77 | 16 | NS | 7 | 3 | 1.95 | 8 | 0.74 | 1.38 | | | | | | | | | | | |
| Lead (dissolved) | 4 | 44 | G | | | NS | 0.278 | 0.764 | NS | | | 0.187 | 0.325 | 0.32 | 0.094 | 1 | 0.155 | | | | | | | | | |
| Lead | 4 | 44 | G | 2 | 3 | NS | 0.105 | 0.554 | NS | 2 | | 0.785 | 2.6 | | 0.5 | | | | | | | | | | | |
| Selenium (dissolved) | 50 | 5 | | | | NS | | | NS | | | 6 | | | | | | | | | | | | | | |
| Selenium | 50 | 5 | | | | NS | | 6 | NS | | | 6 | | | | | | | | | | | | | | |
| Zinc (dissolved) | 2400 | 260 | G | 21 | | NS | 1870 | 18 | NS | | | 1220 | 730 | 373 | 49 | 5 | 317 | | | | | | | | | |
| Zinc | 2400 | 260 | G | 11 | 22 | NS | 2.46 | 1.48 | NS | 12 | 7 | 6 | 10 | | 2.95 | 7 | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank | Trip Blank | Field Blank | Dup2 | Trip Blank | Field Blank | Dup3 | Dup3 |
| | Date Collected | | | 5/11/16 | 5/11/16 | NS | 6/8/16 | 6/1/16 | NS | 5/11/16 | 5/11/16 | 6/1/16 | 6/1/16 | 6/1/16 | 6/8/16 | 5/11/16 | 6/1/16 | 5/11/16 | 5/11/16 | 6/1/16 | 6/1/16 | 6/1/16 | 6/8/16 | 6/8/16 | 6/8/16 | 6/8/16 |
| **ANALYTE (ug/L)** | **DW** | **GSI** | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | 2.72 | 1.62 | NS | | | NS | 2.72 | 2.1 | | 0.6 | 0.67 | | 4.21 | | | 1.98 | | 0.69 | | | | | |
| Methyl iodide | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | | | NS | | | NS | | | | | | | 1.36 | | | 0.37 | | | | | | | |
| Chloromethane | 260 | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Vinyl Chloride | 2.0 | 13 | | | | NS | | | NS | | | | 15 | | | 17 | | | | | | | | | | |
| Chloroethane | 430 | 1,100 | | | | NS | | | NS | | | | | | | 2.59 | | | | | | | | | | |
| trichlorofluoromethane | 2,600 | NA | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | | | NS | | | NS | | | | 3 | | | | | | | | | | | | | |
| Methylene Chloride | 5.0 | 1,500 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | | | NS | | | NS | | | | 0.59 | | | 0.36 | | | | | | | | | | |
| 1,1-Dichloroethane | 880 | 740 | | | | NS | | | NS | | | | 1 | | | 1 | 3 | | | | | | | | | |
| cis-1,2-Dichloroethene | 70 | 620 | | 0.34 | | NS | | | NS | | | | | | | 3 | 30 | | | | | | | | | |
| Tetrahydrofuran | 95 | 11,000 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Chloroform | 80 | 350 | | | | NS | | 3 | NS | | | 1 | | | | | | | | | 0.490 | 3.000 | | | | |
| 1,1,1-Trichloroethane | 200 | 89 | | | | NS | | | NS | | | | 0.31 | | | | 0.3 | | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | 1800 | ID | | | | NS | | | NS | | | | | | | 0.3 | | | | | | | | | | |
| 2-Hexanone | 1000 | ID | | | | NS | | | NS | | | | | | | 0.47 | | | | | | | | | | |
| Carbontetrachloride | 5.0 | 45 | | | | NS | | | NS | | | 2 | | | | | | | | | | | | | | |
| Benzene | 5.0 | 200 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Bromodichloromethane | 80.0 | NC | | | | NS | | 0.74 | NS | | | | | | | | | | | | | 0.710 | | | | |
| Trichloroethene | 5.0 | 200 | | 4 | 2 | NS | | | NS | 4 | 0.26 | | 93 | | 11 | 12 | 50 | | | | | | | | | |
| Toluene | 790 | 270 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 5.0 | 60 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Chlorobenzene | 100 | 25 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Styrene | 100 | 80 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Total Xylenes | 280 | 41 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Naphthalene | 520 | 11 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Diethyl ether | 10 (E) | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| tert-Methyl butyl ether (MTBE) | 40 (E) | 7,100 (X) | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Acrylonitrile | 2.6 | 2.0 (M); 1.2 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | 1,700 | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Bromomethane | 10 | 35 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 5.0 (A) | 360 (X) | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Trichloroethene | 5.0 (A) | 200 (X) | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | 5.0 (A) | 230 (X) | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 5.0 (A) | 330 (X) | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Dibromochloromethane | 80 (A,W) | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 77 | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | 800 | 28 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Bromoform | 80 (A,W) | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 8.5 | 78 (X) | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | 42 | NA | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| n-Propylbenzene | 80 | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| Bromobenzene | 18 | NA | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 72 (E) | 45 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| tert-Butylbenzene | 80 | ID | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 (E) | 17 | | | | NS | | | NS | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | NC | NC | | | | NS | | | NS | | | | | | | | | | | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |
| NS | No Sample |
| 1 | Filtered in lab |
| 2 | Filtered and preserved in lab |
| NA | Not analyzed due to turbidity |

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | | | Dup | | | Dup | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 10/27/16 | 10/27/16 | 11/1/16 | 10/31/16 | 11/1/16 | 11/1/16 | 10/27/16 | 10/27/16 | 10/31/16 | 10/31/16 | 10/31/16 | 10/31/16 | 10/27/16 | 10/31/16 | | | 10/27/16 | | | 10/31/16 | | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10 | 10 | | | | 1.63 | | | 1.23 | | 0.79 | 15 | | | 6 | 108 | 4 | | | 34 | | | | | | |
| Arsenic | 10 | 10 | | 1.69 | 0.7 | 4 | | | 6 | 0.93 | 1.05 | 52 | 1.26 | | 11 | 265 | 17 | | | 259 | | | 2 | | | |
| Chromium (dissolved) | 100 | 160 | G | 0.95 | 20 | 6 | | 24 | 407 | 340 | 0.18 | 0.56 | | | 0.41 | 2.41 | 2.86 | | | 0.59 | | | 0.64 | | | |
| Chromium (total) | 100 | 160 | G | 10 | 63 | 8 | 0.059 | 146 | 6540 | 619 | 19 | 1.31 | 0.62 | 6 | 2 | 9 | 22 | | | 6 | | | 1.38 | | | |
| Chromium VI (dissolved) | 100 | 160 | | | | | | | | | | | | 14 | | | | | | | | | | | | |
| Chromium VI (total) | 100 | 160 | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper (dissolved) | 1000 | 20 | G | 0.91 | 4.31 | 2.20 | 0.99 | 2.22 | 31 | 32 | 1.25 | | 6 | | 6 | 6 | | | | 3 | | | 0.86 | | | |
| Copper | 1000 | 20 | G | 5 | 18 | 1.41 | 1.1 | 4.16 | 203 | 64 | 2.46 | | 6 | 1.85 | 6 | 10 | 2.94 | | | 6 | | | 1.63 | | | |
| Lead (dissolved) | 4 | 44 | G | 0.144 | 0.148 | 0.97 | 0.116 | | 0.85 | 0.451 | | | 0.151 | 0.075 | 0.978 | 1.651 | | | | 0.191 | | | 0.361 | | | |
| Lead | 4 | 44 | G | 2.32 | 0.895 | 1.33 | 0.306 | | 3.00 | 0.632 | 0.35 | 0.161 | 0.479 | 0.523 | 1.3 | 5 | 2.855 | | | 3.000 | | | 0.928 | | | |
| Selenium (dissolved) | 50 | 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | 50 | 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc (dissolved) | 2400 | 260 | G | 20.6 | 2.28 | 5 | 4.19 | | 390 | 2.89 | 10 | 2.36 | 3.46 | | 8 | 16 | 2.05 | | | 10 | | | 6 | | | |
| Zinc | 2400 | 260 | G | 12 | 5 | 6 | 2.35 | | 1380 | 2 | 11 | | 3.59 | 2.3 | 7 | 32 | 9 | | | 21 | | | 6 | | | |

| | Sample ID | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank | Dup | Trip Blank | Field Blank | Dup | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | 10/27/16 | 10/27/16 | 11/1/16 | 10/31/16 | 11/1/16 | 11/1/16 | 10/27/16 | 10/27/16 | 10/31/16 | 10/31/16 | 10/31/16 | 10/31/16 | 10/27/16 | 10/31/16 | 10/27/16 | 10/27/16 | 10/27/16 | 10/31/16 | 10/31/16 | 10/31/16 | | | |
| ANALYTE (ug/L) | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | | | | | | | | | | | | 10 | | | | | | | | | | |
| Methyl Iodide | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | 800 | NC | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | 260 | NC | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl Chloride | 2.0 | 13 | | | | | | | | | | 8 | | 72 | 2 | | | | 2 | | | | | | |
| Chloroethane | 430 | 1,100 | | | | | | | | | | | | | 3 | | | | 3 | | | | | | |
| trichlorofluoromethane | 2,600 | NA | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | | | | | | | | | 3 | | 4 | | | | | | | | | | | |
| Methylene Chloride | 5.0 | 1,500 | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 880 | 740 | | | | | | | | | | 2 | | 2 | | | | | | | | | | | |
| cis-1,2-Dichloroethene | 70 | 620 | | | | | | | | 2 | | 32 | | 10 | 2 | 11 | | | 2 | | | | | | |
| Tetrahydrofuran | 95 | 11,000 | | | | | | | | | | | | | | | | | | | | | | | |
| Chloroform | 80 | 350 | | | | | 1 | | | | 3 | | | | | | | | | | | 2 | | | |
| 1,1,1-Trichloroethane | 200 | 89 | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | 1800 | ID | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Hexanone | 1000 | ID | | | | | | | | | | | | | | | | | | | | | | | |
| Carbontetrachloride | 5.0 | 45 | | | | | | | | | 2 | | | | | | | | | | | 1 | | | |
| Benzene | 5.0 | 200 | | | | | | | | | | | | | | | | | | | | | | | |
| Bromodichloromethane | 80.0 | NC | | | | | | | | | | | | | | | | | | | | | | | |
| Trichloroethene | 5.0 | 200 | 3 | 2 | | | | | | 3 | | 119 | | 41 | 3 | 50 | | | 2 | | | | | | |
| Toluene | 790 | 270 | | | | | | | | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 5.0 | 60 | | | | | | 34 | | | | | | | | | | | | | | | | | |
| Chlorobenzene | 100 | 25 | | | | | | | | | | | | | | | | | | | | | | | |
| Styrene | 100 | 80 | | | | | | | | | | | | | | | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | | | | | | | | | | | | | | | | | | | | | | |
| Total Xylenes | 280 | 41 | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 520 | 11 | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | | | | | | | | | | | | | | | | | | | | | | |
| Diethyl ether | 10 (E) | ID | | | | | | | | | | | | | | | | | | | | | | | |
| tert-Methyl butyl ether (MTBE) | 40 (E) | 7,100 (X) | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | 2.6 | 2.0 (M); 1.2 | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | 1,700 | ID | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | 10 | 35 | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 5.0 (A) | 360 (X) | | | | | | | | | | | | | | | | | | | | | | | |
| Trichloroethene | 5.0 (A) | 200 (X) | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | 5.0 (A) | 230 (X) | | | | | | | | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 5.0 (A) | 330 (X) | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromochloromethane | 80 (A,W) | ID | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 77 | ID | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | 800 | 28 | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | 80 (A,W) | ID | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 8.5 | 78 (X) | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | 42 | NA | | | | | | | | | | | | | | | | | | | | | | | |
| n-Propylbenzene | 80 | ID | | | | | | | | | | | | | | | | | | | | | | | |
| Bromobenzene | 18 | NA | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 72 (E) | 45 | | | | | | | | | | | | | | | | | | | | | | | |
| tert-Butylbenzene | 80 | ID | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 (E) | 17 | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | NC | NC | | | | | | | | | | | | | | | | | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria |
| X | Exceeds both DW and GSI criteria |
| NC | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |
| NS | No Sample |
| 1 | Filtered in lab |
| 2 | Filtered and preserved in lab |
| NA | Not analyzed due to turbidity |

Derected Concentrations for compounds also found in the method blank that appear to be laboratory artifacts are not provided.

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990
**As Erronously Labeled in May 23, 2016 Laboratory Report**

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank | Trip Blank | Field Blank | Dup1 | Trip Blank | Field Blank | Dup2 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 5/11/16 | 5/11/16 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | NS | NS | NS | 6/13/17 | 6/13/17 | NS | 6/13/17 | 6/13/17 | | | 6/13/17 | | | | |
| **ANALYTE (ug/L)** | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic (dissolved) | 10 | 10 | | | 0.85 | | 9.00 | 0.41 | 0.64 | 0.58 | | NS | NS | NS | 1.37 | 82.00 | NS | | | | | 84,000 | | | | |
| Arsenic | 10 | 10 | | | 0.63 | 3.00 | 13.00 | 0.53 | 0.56 | 1.11 | 0.44 | NS | NS | NS | 1.45 | 126.00 | NS | | | | | 123,000 | | | | |
| Chromium (dissolved) | 100 | 160 | G | | 1.57 | 12.00 | 0.22 | 28.00 | 37.00 | 100.00 | 0.16 | NS | NS | NS | 2.69 | 0.34 | NS | | | | | 0.62 | | | | |
| Chromium (total) | 100 | 160 | G | | 21 | 72.00 | 1.50 | 1640.00 | 776.00 | 2500.00 | | NS | NS | NS | 7.00 | 0.37 | NS | | | | | 0.7 | | | | |
| Chromium VI (dissolved) | 100 | 160 | | | | 8.00 | 0.86 | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Chromium VI (total) | 100 | 160 | | | | 6.00 | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Copper (dissolved) | 1000 | 20 | G | | 0.59 | 1.56 | 0.86 | 6.00 | 2.38 | 4.31 | 1.61 | NS | NS | NS | 1.34 | | NS | | | | | 0.4 | | | | |
| Copper | 1000 | 20 | G | | 2.47 | 8.00 | 1.81 | 33.00 | 8.00 | 28.00 | 1.60 | NS | NS | NS | 1.38 | | NS | | | | | 0.62 | | | | |
| Lead (dissolved) | 4 | 44 | G | | | 0.15 | 0.09 | | 0.06 | 0.18 | 0.13 | NS | NS | NS | 0.21 | 0.06 | NS | | | | | | | | | |
| Lead | 4 | 44 | G | | 0.547 | 2.82 | 0.53 | 0.14 | 0.22 | 0.76 | 0.14 | NS | NS | NS | 0.96 | 0.08 | NS | | | | | 0.066 | | | | |
| Selenium (dissolved) | 50 | 5 | | | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Selenium | 50 | 5 | | | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Zinc (dissolved) | 2400 | 260 | G | | 1.69 | 2.09 | 2.48 | 3.13 | 5.00 | 2.20 | 4.41 | NS | NS | NS | 1.72 | 2.22 | NS | | | | | 2.25 | | | | |
| Zinc | 2400 | 260 | G | | 3.16 | 9.00 | 3.22 | 2.59 | 13.00 | 4.68 | 3.01 | NS | NS | NS | 2.54 | 4.07 | NS | | | | | 5 | | | | |

| | Sample ID | | | MW-100S | MW-101S | MW-102S | MW-103S | MW-104S | MW-105S | MW-106SR | MW-107S | MW-108S | MW-109S | MW-110S | MW-111S | MW-112S | MW-113S | Trip Blank | Field Blank | Trip Blank | Field Blank | Dup1 | Trip Blank | Field Blank | Dup3 | Dup3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | 6/13/17 | NS | NS | NS | 6/13/17 | 6/13/17 | NS | 6/13/17 | 6/13/17 | | | 6/13/17 | | | | |
| **ANALYTE (ug/L)** | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | 730 | 1,700 | | NS | 4.29 | 2.15 | 3.86 | 2.50 | 4.15 | 2.26 | 2.40 | NS | NS | NS | 4.31 | 5.87 | NS | 3.04 | 5.67 | | | 4.61 | | | | |
| Methyl Iodide | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Carbon disulfide | 800 | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 2 Butanone (MEK) | 13,000 | 2,200 | | NS | 0.89 | | | | | | | NS | NS | NS | 0.80 | 2.00 | NS | | 0.9 | | | 1.37 | | | | |
| Chloromethane | 260 | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Vinyl Chloride | 2.0 | 13 | | NS | | | | | | | | NS | NS | NS | | 10.00 | NS | | | | | 12 | | | | |
| Chloroethane | 430 | 1,100 | | NS | | | | | | | | NS | NS | NS | | 1.59 | NS | | | | | 2.05 | | | | |
| trichlorofluoromethane | 2,600 | NA | | NS | 0.56 | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,1-Dichloroethene | 7.0 | 130 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | 2 | | | | |
| Methylene Chloride | 5.0 | 1,500 | | NS | | | | | | | | NS | NS | NS | | 0.35 | NS | | 0.31 | | | 0.41 | | | | |
| trans-1,2-Dichloroethene | 100 | 1,500 | | NS | | | | | | | | NS | NS | NS | | 0.39 | NS | | | | | 0.53 | | | | |
| 1,1-Dichloroethane | 880 | 740 | | NS | | | | | | | | NS | NS | NS | | 1.00 | NS | | | | | 1 | | | | |
| cis-1,2-Dichloroethene | 70 | 620 | | NS | | | | | | | | NS | NS | NS | | 4.00 | NS | | | | | 6 | | | | |
| Tetrahydrofuran | 95 | 11,000 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Chloroform | 80 | 350 | | NS | | | | 1.00 | | | | NS | NS | NS | | | NS | | 11.000 | | | | | | | |
| 1,1,1-Trichloroethane | 200 | 89 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | 1800 | ID | | NS | | | | | | | 0.15 | NS | NS | NS | | 0.75 | NS | | | | | | | | | |
| 2-Hexanone | 1000 | ID | | NS | | | | | | | | NS | NS | NS | | 0.97 | NS | | | | | | | | | |
| Carbontetrachloride | 5.0 | 45 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Benzene | 5.0 | 200 | | NS | | | | | | | | NS | NS | NS | | 0.20 | NS | | | | | | | | | |
| Bromodichloromethane | 80.0 | NC | | NS | | | | 0.55 | | | | NS | NS | NS | | | NS | | 2.00 | | | | | | | |
| Trichloroethene | 5.0 | 200 | | NS | 0.97 | 0.74 | | | | | 0.25 | NS | NS | NS | 3.00 | 10.00 | NS | | | | | 15 | | | | |
| Toluene | 790 | 270 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Tetrachloroethene | 5.0 | 60 | | NS | | | | | 29.00 | | | NS | NS | NS | | | NS | | | | | | | | | |
| Chlorobenzene | 100 | 25 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Styrene | 100 | 80 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Ethylbenzene | 74 | 18 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Total Xylenes | 280 | 41 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2 -Dichlorobenzene | 600 | 13 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 | 17 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Naphthalene | 520 | 11 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 2-Methylnaphthalene | 260 | 19 | | NS | | | | | | | | NS | NS | NS | 1.40 | | NS | | | | | | | | | |
| Diethyl ether | 10 (E) | ID | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| tert-Methyl butyl ether (MTBE) | 40 (E) | 7,100 (X) | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Acrylonitrile | 2.6 | 2.0 (M); 1.2 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Dichlorodifluoromethane | 1,700 | ID | | NS | | | | | | | | NS | NS | NS | | | NS | | 0.32 | | | | | | | |
| Bromomethane | 10 | 35 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2-Dichloroethane | 5.0 (A) | 360 (X) | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Trichloroethene | 5.0 (A) | 200 (X) | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2-Dichloropropane | 5.0 (A) | 230 (X) | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| cis-1,3-Dichloropropene | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| trans-1,3-Dichloropropene | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,1,2-Trichloroethane | 5.0 (A) | 330 (X) | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Dibromochloromethane | 80 (A,W) | ID | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2-Dibromoethane | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 77 | ID | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Isopropylbenzene | 800 | 28 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| Bromoform | 80 (A,W) | ID | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 8.5 | 78 (X) | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2,3-Trichloropropane | 42 | NA | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| n-Propylbenzene | 80 | ID | | NS | | | | | | | | NS | NS | NS | 0.30 | | NS | | | | | | | | | |
| Bromobenzene | 18 | NA | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 72 (E) | 45 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| tert-Butylbenzene | 80 | ID | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 63 (E) | 17 | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| 1,2,3-Trichlorobenzene | NC | NC | | NS | | | | | | | | NS | NS | NS | | | NS | | | | | | | | | |
| n-Butylbenzene | NC | NC | | NS | | | | | | | | NS | NS | NS | 0.270 | | NS | | | | | | | | | |

NOTES:

| | | |
|---|---|---|
| | Blank cells indicate no detectable concentrations | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria | Exceeds DW criteria |
| X | Exceeds GSI criteria | Exceeds GSI criteria |
| X | Exceeds both DW and GSI criteria | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggestin | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion | Insufficient data to develop criterion/no criterion |
| G | Groundwater to Surface Water Interface Criteria - calculated | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |
| NS | No Sample | No Sample |
| 1 | Filtered in lab | Filtered in lab |
| 2 | Filtered and preserved in lab | Filtered and preserved in lab |
| NA | Not analyzed due to turbidity | Not analyzed due to turbidity |

ATTACHMENT #3: GROUNDWATER ANALYTICAL LABORATORY REPORT

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

# Analytical Laboratory Report

Report ID: S81789.01(01)
Generated on 06/21/2017

Report to

Attention: Mike Smith
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 810-715-2525 FAX: 810-715-2526
Email: ae_mds@yahoo.com

Report produced by

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

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

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S81789.01-S81789.12
Project: Racer Flint West
Collected Date: 06/13/2017
Submitted Date/Time: 06/14/2017 10:55
Sampled by: Unknown
P.O. #: PO248418

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
Report Narrative (Page 2)
Laboratory Certifications (Page 3)
Qualifier Descriptions (Page 3)
Glossary of Abbreviations (Page 3)
Method Summary (Page 4)
Sample Summary (Page 5)

Maya Murshak
Technical Director

## General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

## Report Narrative

There is no additional narrative for this analytical report

# Analytical Laboratory Report

**Laboratory Certifications**

| Authority | Certification ID |
|---|---|
| Michigan DEQ | #9956 |
| DOD ELAP/ISO 17025 | #69699 |
| WBENC | #2005110032 |
| Ohio VAP | #CL0002 |
| Indiana DOH | #C-MI-07 |
| New York NELAC | #11814 |
| North Carolina DENR | #680 |
| North Carolina DOH | #26702 |

**Qualifier Descriptions**

| Qualifier | Description |
|---|---|
| ! | Result is outside of stated limit criteria |
| B | Compound also found in associated method blank |
| E | Concentration exceeds calibration range |
| F | Analysis run outside of holding time |
| G | Estimated result due to extraction run outside of holding time |
| H | Sample submitted and run outside of holding time |
| I | Matrix interference with internal standard |
| J | Estimated value less than reporting limit, but greater than MDL |
| L | Elevated reporting limit due to low sample amount |
| M | Result reported to MDL not RDL |
| O | Analysis performed by outside laboratory. See attached report. |
| R | Preliminary result |
| S | Surrogate recovery outside of control limits |
| T | No correction for total solids |
| X | Elevated reporting limit due to matrix interference |
| Y | Elevated reporting limit due to high target concentration |
| b | Value detected less than reporting limit, but greater than MDL |
| e | Reported value estimated due to interference |
| j | Analyte also found in associated method blank |
| p | Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak. |
| x | Preserved from bulk sample |

**Glossary of Abbreviations**

| Abbreviation | Description |
|---|---|
| RL/RDL | Reporting Limit |
| MDL | Method Detection Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| SW | EPA SW 846 (Soil and Wastewater) Methods |
| E | EPA Methods |
| SM | Standard Methods |

**Method Summary**

| Method | Version |
|---|---|
| E200.8 | EPA Method 200.8 Revision 5.4 |
| N/A | Not Applicable |
| SM3500-Cr B | Standard Method 3500 Cr B 20th Edition |
| SW3015A | SW 846 Method 3015A Revision 1 February 2007 |
| SW5030C/8260B | |

# Analytical Laboratory Report

**Sample Summary (12 samples)**

| Sample ID | Sample Tag | Matrix | Collected Date/Time |
|---|---|---|---|
| S81789.01 | MW 111S | Groundwater | 06/13/17 20:45 |
| S81789.02 | MW 101S | Groundwater | 06/13/17 14:30 |
| S81789.03 | MW 112S | Groundwater | 06/13/17 15:15 |
| S81789.04 | MW 107S | Groundwater | 06/13/17 16:00 |
| S81789.05 | MW 106S | Groundwater | 06/13/17 16:30 |
| S81789.06 | MW 104S | Groundwater | 06/13/17 17:15 |
| S81789.07 | MW 105S | Groundwater | 06/13/17 17:50 |
| S81789.08 | MW 102S | Groundwater | 06/13/17 18:30 |
| S81789.09 | MW 103S | Groundwater | 06/13/17 19:40 |
| S81789.10 | Duplicate | Groundwater | 06/13/17 15:00 |
| S81789.11 | F. Blank 1 | Water | 06/13/17 00:01 |
| S81789.12 | T. Blank | Water | 06/13/17 00:01 |

# Analytical Laboratory Report

Lab Sample ID: S81789.01
Sample Tag: MW 111S
Collected Date/Time: 06/13/2017 20:45
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:30 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 12:20 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.00137 | mg/L | 0.002 | E200.8 | 06/15/17 13:42 | CCM | 0.00039 | bx |
| Arsenic | 0.00145 | mg/L | 0.002 | E200.8 | 06/15/17 13:18 | CCM | 0.00039 | b |
| Chromium, Dissolved | 0.00269 | mg/L | 0.005 | E200.8 | 06/15/17 13:42 | CCM | 0.00015 | bx |
| Chromium | 0.007 | mg/L | 0.005 | E200.8 | 06/15/17 13:18 | CCM | 0.00015 | |
| Copper, Dissolved | 0.00134 | mg/L | 0.005 | E200.8 | 06/15/17 13:42 | CCM | 0.00029 | bx |
| Copper | 0.00138 | mg/L | 0.005 | E200.8 | 06/15/17 13:18 | CCM | 0.00029 | b |
| Lead, Dissolved | 0.000208 | mg/L | 0.003 | E200.8 | 06/15/17 13:42 | CCM | 0.000055 | bx |
| Lead | 0.000956 | mg/L | 0.003 | E200.8 | 06/15/17 13:18 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:42 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:18 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00172 | mg/L | 0.005 | E200.8 | 06/15/17 13:42 | CCM | 0.0014 | bx |
| Zinc | 0.00254 | mg/L | 0.005 | E200.8 | 06/15/17 13:18 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.50 | |
| Acetone* | 4.31 | ug/L | 50 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.57 | |
| 2-Butanone (MEK)* | 0.80 | ug/L | 25 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.26 | J |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.27 | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.29 | |

b-Value detected less than reporting limit, but greater than MDL  x-Preserved from bulk sample
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.01 (continued)
Sample Tag: MW 111S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 17:20 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.16 | |
| Trichloroethene* | 3 | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.33 | |
| n-Propylbenzene* | 0.30 | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.23 | J |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.061 | |
| n-Butylbenzene* | 0.27 | ug/L | 1 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.22 | J |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.47 | |

J-Estimated value less than reporting limit, but greater than MDL

# Analytical Laboratory Report

Lab Sample ID: S81789.01 (continued)
Sample Tag: MW 111S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.21 | |
| 2-Methylnaphthalene* | 1.40 | ug/L | 5 | SW5030C/8260B | 06/15/17 17:20 | JGH | 0.16 | J |

J-Estimated value less than reporting limit, but greater than MDL

# Analytical Laboratory Report

Lab Sample ID: S81789.02
Sample Tag: MW 101S
Collected Date/Time: 06/13/2017 14:30
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:35 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 12:30 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.00085 | mg/L | 0.002 | E200.8 | 06/15/17 13:44 | CCM | 0.00039 | bx |
| Arsenic | 0.00063 | mg/L | 0.002 | E200.8 | 06/15/17 13:19 | CCM | 0.00039 | b |
| Chromium, Dissolved | 0.00157 | mg/L | 0.005 | E200.8 | 06/15/17 13:44 | CCM | 0.00015 | bx |
| Chromium | 0.021 | mg/L | 0.005 | E200.8 | 06/15/17 13:19 | CCM | 0.00015 | |
| Copper, Dissolved | 0.00059 | mg/L | 0.005 | E200.8 | 06/15/17 13:44 | CCM | 0.00029 | bx |
| Copper | 0.00247 | mg/L | 0.005 | E200.8 | 06/15/17 13:19 | CCM | 0.00029 | b |
| Lead, Dissolved | Not detected | mg/L | 0.003 | E200.8 | 06/15/17 13:44 | CCM | 0.000055 | x |
| Lead | 0.000547 | mg/L | 0.003 | E200.8 | 06/15/17 13:19 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:44 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:19 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00169 | mg/L | 0.005 | E200.8 | 06/15/17 13:44 | CCM | 0.0014 | bx |
| Zinc | 0.00316 | mg/L | 0.005 | E200.8 | 06/15/17 13:19 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.50 | |
| Acetone* | 4.29 | ug/L | 50 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.57 | |
| 2-Butanone (MEK)* | 0.89 | ug/L | 25 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.26 | J |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.34 | |
| Trichlorofluoromethane* | 0.56 | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.33 | J |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.27 | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.29 | |

b-Value detected less than reporting limit, but greater than MDL  x-Preserved from bulk sample
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.02 (continued)
Sample Tag: MW 101S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 17:42 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.16 | |
| Trichloroethene* | 0.97 | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.23 | J |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.47 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.02 (continued)
Sample Tag: MW 101S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 17:42 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.03
Sample Tag: MW 112S
Collected Date/Time: 06/13/2017 15:15
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:40 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.02 | SM3500-Cr B | 06/14/17 12:45 | JKB | 0.0075 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.082 | mg/L | 0.002 | E200.8 | 06/15/17 13:45 | CCM | 0.00039 | x |
| Arsenic | 0.126 | mg/L | 0.002 | E200.8 | 06/15/17 13:21 | CCM | 0.00039 | |
| Chromium, Dissolved | 0.00034 | mg/L | 0.005 | E200.8 | 06/15/17 13:45 | CCM | 0.00015 | bx |
| Chromium | 0.00037 | mg/L | 0.005 | E200.8 | 06/15/17 13:21 | CCM | 0.00015 | b |
| Copper, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:45 | CCM | 0.00029 | x |
| Copper | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:21 | CCM | 0.00029 | |
| Lead, Dissolved | 0.000064 | mg/L | 0.003 | E200.8 | 06/15/17 13:45 | CCM | 0.000055 | bx |
| Lead | 0.000083 | mg/L | 0.003 | E200.8 | 06/15/17 13:21 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:45 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:21 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00222 | mg/L | 0.005 | E200.8 | 06/15/17 13:45 | CCM | 0.0014 | bx |
| Zinc | 0.00407 | mg/L | 0.005 | E200.8 | 06/15/17 13:21 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.50 | |
| Acetone* | 5.87 | ug/L | 50 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.57 | |
| 2-Butanone (MEK)* | 2.00 | ug/L | 25 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.26 | J |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.26 | |
| Vinyl chloride* | 10 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.32 | |
| Chloroethane* | 1.59 | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.34 | J |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.33 | |
| 1,1-Dichloroethene* | 1 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.27 | |

x-Preserved from bulk sample
b-Value detected less than reporting limit, but greater than MDL
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.03 (continued)
Sample Tag: MW 112S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| Methylene chloride* | 0.35 | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.29 | J |
| trans-1,2-Dichloroethene* | 0.39 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | J |
| 1,1-Dichloroethane* | 1 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | 4 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 18:04 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | 0.75 | ug/L | 50 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.14 | J |
| 2-Hexanone* | 0.97 | ug/L | 50 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.29 | J |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| Benzene* | 0.20 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | J |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.16 | |
| Trichloroethene* | 10 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.21 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.03 (continued)
Sample Tag: MW 112S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:04 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.04
Sample Tag: MW 107S
Collected Date/Time: 06/13/2017 16:00
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:45 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 12:50 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | Not detected | mg/L | 0.002 | E200.8 | 06/15/17 13:47 | CCM | 0.00039 | x |
| Arsenic | 0.00044 | mg/L | 0.002 | E200.8 | 06/15/17 13:24 | CCM | 0.00039 | b |
| Chromium, Dissolved | 0.00016 | mg/L | 0.005 | E200.8 | 06/15/17 13:47 | CCM | 0.00015 | bx |
| Chromium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:24 | CCM | 0.00015 | |
| Copper, Dissolved | 0.00161 | mg/L | 0.005 | E200.8 | 06/15/17 13:47 | CCM | 0.00029 | bx |
| Copper | 0.00160 | mg/L | 0.005 | E200.8 | 06/15/17 13:24 | CCM | 0.00029 | b |
| Lead, Dissolved | 0.000130 | mg/L | 0.003 | E200.8 | 06/15/17 13:47 | CCM | 0.000055 | bx |
| Lead | 0.000144 | mg/L | 0.003 | E200.8 | 06/15/17 13:24 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:47 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:24 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00441 | mg/L | 0.005 | E200.8 | 06/15/17 13:47 | CCM | 0.0014 | bx |
| Zinc | 0.00301 | mg/L | 0.005 | E200.8 | 06/15/17 13:24 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.50 | |
| Acetone* | 2.40 | ug/L | 50 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.27 | |

x-Preserved from bulk sample
b-Value detected less than reporting limit, but greater than MDL
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.04 (continued)
Sample Tag: MW 107S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.29 | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 18:26 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | 0.15 | ug/L | 50 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.14 | J |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.16 | |
| Trichloroethene* | 0.25 | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.23 | J |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.21 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.04 (continued)
Sample Tag: MW 107S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:26 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.05
Sample Tag: MW 106S
Collected Date/Time: 06/13/2017 16:30
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:50 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 12:55 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.00058 | mg/L | 0.002 | E200.8 | 06/15/17 13:49 | CCM | 0.00039 | bx |
| Arsenic | 0.00111 | mg/L | 0.002 | E200.8 | 06/15/17 13:25 | CCM | 0.00039 | b |
| Chromium, Dissolved | 0.100 | mg/L | 0.005 | E200.8 | 06/15/17 13:49 | CCM | 0.00015 | x |
| Chromium | 2.50 | mg/L | 0.005 | E200.8 | 06/15/17 13:25 | CCM | 0.00015 | |
| Copper, Dissolved | 0.00431 | mg/L | 0.005 | E200.8 | 06/15/17 13:49 | CCM | 0.00029 | bx |
| Copper | 0.028 | mg/L | 0.005 | E200.8 | 06/15/17 13:25 | CCM | 0.00029 | |
| Lead, Dissolved | 0.000180 | mg/L | 0.003 | E200.8 | 06/15/17 13:49 | CCM | 0.000055 | bx |
| Lead | 0.000756 | mg/L | 0.003 | E200.8 | 06/15/17 13:25 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:49 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:25 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00220 | mg/L | 0.005 | E200.8 | 06/15/17 13:49 | CCM | 0.0014 | bx |
| Zinc | 0.00468 | mg/L | 0.005 | E200.8 | 06/15/17 13:25 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.50 | |
| Acetone* | 2.26 | ug/L | 50 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.27 | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.29 | |

b-Value detected less than reporting limit, but greater than MDL  x-Preserved from bulk sample
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.05 (continued)
Sample Tag: MW 106S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 18:48 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.16 | |
| Trichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.19 | |

Lab Sample ID: S81789.05 (continued)
Sample Tag: MW 106S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 18:48 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.06
Sample Tag: MW 104S
Collected Date/Time: 06/13/2017 17:15
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:55 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:00 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.00041 | mg/L | 0.002 | E200.8 | 06/15/17 13:53 | CCM | 0.00039 | bx |
| Arsenic | 0.00053 | mg/L | 0.002 | E200.8 | 06/15/17 13:28 | CCM | 0.00039 | b |
| Chromium, Dissolved | 0.028 | mg/L | 0.005 | E200.8 | 06/15/17 13:53 | CCM | 0.00015 | x |
| Chromium | 1.64 | mg/L | 0.005 | E200.8 | 06/15/17 13:28 | CCM | 0.00015 | |
| Copper, Dissolved | 0.006 | mg/L | 0.005 | E200.8 | 06/15/17 13:53 | CCM | 0.00029 | x |
| Copper | 0.033 | mg/L | 0.005 | E200.8 | 06/15/17 13:28 | CCM | 0.00029 | |
| Lead, Dissolved | Not detected | mg/L | 0.003 | E200.8 | 06/15/17 13:53 | CCM | 0.000055 | x |
| Lead | 0.000139 | mg/L | 0.003 | E200.8 | 06/15/17 13:28 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:53 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:28 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00313 | mg/L | 0.005 | E200.8 | 06/15/17 13:53 | CCM | 0.0014 | bx |
| Zinc | 0.00259 | mg/L | 0.005 | E200.8 | 06/15/17 13:28 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.50 | |
| Acetone* | 2.50 | ug/L | 50 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.27 | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.29 | |

b-Value detected less than reporting limit, but greater than MDL x-Preserved from bulk sample
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.06 (continued)
Sample Tag: MW 104S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 19:10 | JGH | 1.3 | |
| Chloroform* | 1 | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.16 | |
| Trichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| Bromodichloromethane* | 0.55 | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.23 | J |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.47 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.06 (continued)
Sample Tag: MW 104S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:10 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.07
Sample Tag: MW 105S
Collected Date/Time: 06/13/2017 17:50
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 14:00 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:05 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.00064 | mg/L | 0.002 | E200.8 | 06/15/17 13:58 | CCM | 0.00039 | bx |
| Arsenic | 0.00056 | mg/L | 0.002 | E200.8 | 06/15/17 13:29 | CCM | 0.00039 | b |
| Chromium, Dissolved | 0.037 | mg/L | 0.005 | E200.8 | 06/15/17 13:58 | CCM | 0.00015 | x |
| Chromium | 0.776 | mg/L | 0.005 | E200.8 | 06/15/17 13:29 | CCM | 0.00015 | |
| Copper, Dissolved | 0.00238 | mg/L | 0.005 | E200.8 | 06/15/17 13:58 | CCM | 0.00029 | bx |
| Copper | 0.008 | mg/L | 0.005 | E200.8 | 06/15/17 13:29 | CCM | 0.00029 | |
| Lead, Dissolved | 0.000060 | mg/L | 0.003 | E200.8 | 06/15/17 13:58 | CCM | 0.000055 | bx |
| Lead | 0.000223 | mg/L | 0.003 | E200.8 | 06/15/17 13:29 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:58 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:29 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.005 | mg/L | 0.005 | E200.8 | 06/15/17 13:58 | CCM | 0.0014 | x |
| Zinc | 0.013 | mg/L | 0.005 | E200.8 | 06/15/17 13:29 | CCM | 0.0014 | |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.50 | |
| Acetone* | 4.15 | ug/L | 50 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.27 | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.29 | |

b-Value detected less than reporting limit, but greater than MDL x-Preserved from bulk sample
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.07 (continued)
Sample Tag: MW 105S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 19:32 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.16 | |
| Trichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.28 | |
| Tetrachloroethene* | 29 | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.19 | |

Lab Sample ID: S81789.07 (continued)
Sample Tag: MW 105S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:32 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.08
Sample Tag: MW 102S
Collected Date/Time: 06/13/2017 18:30
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | 0.008 | mg/L | 0.01 | SM3500-Cr B | 06/14/17 14:05 | JKB | 0.003 | |
| Chromium VI | 0.006 | mg/L | 0.01 | SM3500-Cr B | 06/14/17 13:10 | JKB | 0.003 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | Not detected | mg/L | 0.002 | E200.8 | 06/15/17 14:01 | CCM | 0.00039 | x |
| Arsenic | 0.003 | mg/L | 0.002 | E200.8 | 06/15/17 13:32 | CCM | 0.00039 | |
| Chromium, Dissolved | 0.012 | mg/L | 0.005 | E200.8 | 06/15/17 14:01 | CCM | 0.00015 | x |
| Chromium | 0.072 | mg/L | 0.005 | E200.8 | 06/15/17 13:32 | CCM | 0.00015 | |
| Copper, Dissolved | 0.00156 | mg/L | 0.005 | E200.8 | 06/15/17 14:01 | CCM | 0.00029 | bx |
| Copper | 0.008 | mg/L | 0.005 | E200.8 | 06/15/17 13:32 | CCM | 0.00029 | |
| Lead, Dissolved | 0.000150 | mg/L | 0.003 | E200.8 | 06/15/17 14:01 | CCM | 0.000055 | bx |
| Lead | 0.002816 | mg/L | 0.003 | E200.8 | 06/15/17 13:32 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 14:01 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:32 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00209 | mg/L | 0.005 | E200.8 | 06/15/17 14:01 | CCM | 0.0014 | bx |
| Zinc | 0.009 | mg/L | 0.005 | E200.8 | 06/15/17 13:32 | CCM | 0.0014 | |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.50 | |
| Acetone* | 2.15 | ug/L | 50 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.27 | |

x-Preserved from bulk sample
b-Value detected less than reporting limit, but greater than MDL
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.08 (continued)
Sample Tag: MW 102S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.29 | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 19:54 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.16 | |
| Trichloroethene* | 0.74 | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.23 | J |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.21 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.08 (continued)
Sample Tag: MW 102S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 19:54 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.09
Sample Tag: MW 103S
Collected Date/Time: 06/13/2017 19:40
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 14:10 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.02 | SM3500-Cr B | 06/14/17 13:15 | JKB | 0.0075 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.009 | mg/L | 0.002 | E200.8 | 06/15/17 14:02 | CCM | 0.00039 | x |
| Arsenic | 0.013 | mg/L | 0.002 | E200.8 | 06/15/17 13:33 | CCM | 0.00039 | |
| Chromium, Dissolved | 0.00022 | mg/L | 0.005 | E200.8 | 06/15/17 14:02 | CCM | 0.00015 | bx |
| Chromium | 0.00150 | mg/L | 0.005 | E200.8 | 06/15/17 13:33 | CCM | 0.00015 | b |
| Copper, Dissolved | 0.00086 | mg/L | 0.005 | E200.8 | 06/15/17 14:02 | CCM | 0.00029 | bx |
| Copper | 0.00181 | mg/L | 0.005 | E200.8 | 06/15/17 13:33 | CCM | 0.00029 | b |
| Lead, Dissolved | 0.000087 | mg/L | 0.003 | E200.8 | 06/15/17 14:02 | CCM | 0.000055 | bx |
| Lead | 0.000534 | mg/L | 0.003 | E200.8 | 06/15/17 13:33 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 14:02 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:33 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00248 | mg/L | 0.005 | E200.8 | 06/15/17 14:02 | CCM | 0.0014 | bx |
| Zinc | 0.00322 | mg/L | 0.005 | E200.8 | 06/15/17 13:33 | CCM | 0.0014 | b |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.50 | |
| Acetone* | 3.86 | ug/L | 50 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.27 | |

x-Preserved from bulk sample
b-Value detected less than reporting limit, but greater than MDL
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.09 (continued)
Sample Tag: MW 103S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.29 | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 20:16 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.16 | |
| Trichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.47 | |

Lab Sample ID: S81789.09 (continued)
Sample Tag: MW 103S

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:16 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.10
Sample Tag: Duplicate
Collected Date/Time: 06/13/2017 15:00
Matrix: Groundwater
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 125ml Plastic | None | Yes | 9.8 | IR |
| 1 | 125ml Plastic | HNO3 | Yes | 9.8 | IR |
| 4 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| Metal Digestion | Completed | | | SW3015A | 06/15/17 12:00 | CCM | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Inorganics*** | | | | | | | | |
| Chromium VI, Dissolved | Not detected | mg/L | 0.01 | SM3500-Cr B | 06/14/17 14:15 | JKB | 0.003 | |
| Chromium VI | Not detected | mg/L | 0.02 | SM3500-Cr B | 06/14/17 13:20 | JKB | 0.0075 | |
| ***Metals*** | | | | | | | | |
| Arsenic, Dissolved | 0.084 | mg/L | 0.002 | E200.8 | 06/15/17 14:03 | CCM | 0.00039 | x |
| Arsenic | 0.123 | mg/L | 0.002 | E200.8 | 06/15/17 13:34 | CCM | 0.00039 | |
| Chromium, Dissolved | 0.00062 | mg/L | 0.005 | E200.8 | 06/15/17 14:03 | CCM | 0.00015 | bx |
| Chromium | 0.00070 | mg/L | 0.005 | E200.8 | 06/15/17 13:34 | CCM | 0.00015 | b |
| Copper, Dissolved | 0.00040 | mg/L | 0.005 | E200.8 | 06/15/17 14:03 | CCM | 0.00029 | bx |
| Copper | 0.00062 | mg/L | 0.005 | E200.8 | 06/15/17 13:34 | CCM | 0.00029 | b |
| Lead, Dissolved | Not detected | mg/L | 0.003 | E200.8 | 06/15/17 14:03 | CCM | 0.000055 | x |
| Lead | 0.000066 | mg/L | 0.003 | E200.8 | 06/15/17 13:34 | CCM | 0.000055 | b |
| Selenium, Dissolved | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 14:03 | CCM | 0.0025 | x |
| Selenium | Not detected | mg/L | 0.005 | E200.8 | 06/15/17 13:34 | CCM | 0.0025 | |
| Zinc, Dissolved | 0.00225 | mg/L | 0.005 | E200.8 | 06/15/17 14:03 | CCM | 0.0014 | bx |
| Zinc | 0.005 | mg/L | 0.005 | E200.8 | 06/15/17 13:34 | CCM | 0.0014 | |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.50 | |
| Acetone* | 4.61 | ug/L | 50 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.57 | |
| 2-Butanone (MEK)* | 1.37 | ug/L | 25 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.26 | J |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.26 | |
| Vinyl chloride* | 12 | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.32 | |
| Chloroethane* | 2.05 | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.34 | J |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.33 | |
| 1,1-Dichloroethene* | 2 | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.27 | |

x-Preserved from bulk sample
b-Value detected less than reporting limit, but greater than MDL
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.10 (continued)
Sample Tag: Duplicate

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| Methylene chloride* | 0.41 | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.29 | J |
| trans-1,2-Dichloroethene* | 0.53 | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | J |
| 1,1-Dichloroethane* | 1 | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | 6 | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 20:39 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.16 | |
| Trichloroethene* | 15 | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.24 | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.21 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.10 (continued)
Sample Tag: Duplicate

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 20:39 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.11
Sample Tag: F. Blank 1
Collected Date/Time: 06/13/2017 00:01
Matrix: Water
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 1 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.50 | |
| Acetone* | 5.67 | ug/L | 50 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.57 | |
| 2-Butanone (MEK)* | 0.90 | ug/L | 25 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.26 | J |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.27 | |
| Methylene chloride* | 0.31 | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.29 | J |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 16:14 | JGH | 1.3 | |
| Chloroform* | 11 | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.16 | |
| Trichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| Bromodichloromethane* | 2 | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| Dibromochloromethane* | 0.32 | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.24 | J |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.11 (continued)
Sample Tag: F. Blank 1

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:14 | JGH | 0.16 | |

# Analytical Laboratory Report

Lab Sample ID: S81789.12
Sample Tag: T. Blank
Collected Date/Time: 06/13/2017 00:01
Matrix: Water
COC Reference: 102151

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---|---|---|---|---|
| 2 | 40ml Glass | HCL | Yes | 9.8 | IR |

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Extraction / Prep.*** | | | | | | | | |
| pH check for VOCs* | <2 | STD Units | | N/A | 06/16/17 13:30 | KCV | | |
| ***Organics - Volatiles*** | | | | | | | | |
| **Volatile Organics - DEQ List** | | | | | | | | |
| Diethyl ether* | Not detected | ug/L | 10 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.50 | |
| Acetone* | 3.04 | ug/L | 50 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.56 | J |
| Methyl iodide* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.25 | |
| Carbon disulfide* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.24 | |
| tert-Methyl butyl ether (MTBE)* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.19 | |
| Acrylonitrile* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.57 | |
| 2-Butanone (MEK)* | Not detected | ug/L | 25 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.26 | |
| Dichlorodifluoromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.50 | |
| Chloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.26 | |
| Vinyl chloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.31 | |
| Bromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.32 | |
| Chloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.34 | |
| Trichlorofluoromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.33 | |
| 1,1-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.27 | |
| Methylene chloride* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.29 | |
| trans-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| 1,1-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| cis-1,2-Dichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.26 | |
| Tetrahydrofuran* | Not detected | ug/L | 90 | SW5030C/8260B | 06/15/17 16:36 | JGH | 1.3 | |
| Chloroform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.21 | |
| Bromochloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.38 | |
| 1,1,1-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.28 | |
| 4-Methyl-2-pentanone (MIBK)* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.14 | |
| 2-Hexanone* | Not detected | ug/L | 50 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.29 | |
| Carbon tetrachloride* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| Benzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| 1,2-Dichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.16 | |
| Trichloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.23 | |
| 1,2-Dichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| Bromodichloromethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.23 | |
| Dibromomethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| cis-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.19 | |
| Toluene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.25 | |
| trans-1,3-Dichloropropene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.25 | |
| 1,1,2-Trichloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.28 | |
| Tetrachloroethene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| trans-1,4-Dichloro-2-butene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| Dibromochloromethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.24 | |

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S81789.12 (continued)
Sample Tag: T. Blank

| Analysis | Results | Units | RL | Method | Run Date/Time | Tech | MDL | Flags |
|---|---|---|---|---|---|---|---|---|
| ***Organics - Volatiles (continued)*** | | | | | | | | |
| **Volatile Organics - DEQ List (continued)** | | | | | | | | |
| 1,2-Dibromoethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.30 | |
| Chlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.17 | |
| 1,1,1,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.24 | |
| Ethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.26 | |
| p,m-Xylene* | Not detected | ug/L | 2 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.41 | |
| o-Xylene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.25 | |
| Styrene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.18 | |
| Isopropylbenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.25 | |
| Bromoform* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.22 | |
| 1,1,2,2-Tetrachloroethane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.18 | |
| 1,2,3-Trichloropropane* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.33 | |
| n-Propylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.23 | |
| Bromobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.27 | |
| 1,3,5-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.26 | |
| tert-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.18 | |
| 1,2,4-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.22 | |
| sec-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.25 | |
| p-Isopropyltoluene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.21 | |
| 1,3-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.24 | |
| 1,4-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.23 | |
| 1,2-Dichlorobenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.28 | |
| 1,2,3-Trimethylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.061 | |
| n-Butylbenzene* | Not detected | ug/L | 1 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.22 | |
| Hexachloroethane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.21 | |
| 1,2-Dibromo-3-chloropropane* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.47 | |
| 1,2,4-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.19 | |
| 1,2,3-Trichlorobenzene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.20 | |
| Naphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.21 | |
| 2-Methylnaphthalene* | Not detected | ug/L | 5 | SW5030C/8260B | 06/15/17 16:36 | JGH | 0.16 | |

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____

102151

# CHAIN OF CUSTODY RECORD

**REPORT TO**

CONTACT NAME: APPLIED ECO-SYSTEMS ↓↑ MIKE SMITH
COMPANY:
ADDRESS: 6.4300 S. SAGINAW ST
CITY: BURTON MI STATE: MI ZIP CODE: 48529
PHONE NO.: 810 715 2525 FAX NO.: 810 715 2526 P.O. NO.:
E-MAIL ADDRESS: QE_MDS@YAHOO.COM QUOTE NO.:

**INVOICE TO**

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: ROGER FLINT WEST
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER _____

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other _____

| MERIT LAB NO. (FOR LAB USE ONLY) | YEAR DATE | YEAR TIME | SAMPLE TAG IDENTIFICATION-DESCRIPTION | MATRIX | # OF BOTTLES | NONE | HCl | $HNO_3$ | $H_2SO_4$ | NaOH | MeOH | OTHER | VOC's | TOTAL METALS | DIS. METALS | CR 6 (TOTAL DISSOLVED) | Special Instructions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81789.01 | 6/13 | 845 | MW 111 S | GW | 6 | 1 | 4 | 1 | | | | | X | X | X | X | PERMISSION TO |
| .02 | ↓ | 230 | MW 101 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | FILTER METALS & |
| .03 | ↓ | 315 | MW 112 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | PRESERVE SAMPLES |
| .04 | ↓ | 4pm | MW 107 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | |
| .05 | ↓ | 430 | MW 106 SR | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | * METALS |
| .06 | ↓ | 515 | MW 104 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | ARSENIC |
| .07 | ↓ | 550 | MW 105 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | COPPER |
| .08 | ↓ | 630 | MW 102 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | CHROM |
| .09 | ↓ | 740 | MW 103 S | | | | | | | | | | ↓ | ↓ | ↓ | ↓ | LEAD |
| .10 | 6/13 | 3pm | DUPLICATE | | | | | | | | | | ↓ | X | X | X | SELENIUM |
| .11 | | | F. BLANK 1 | | | | | | | | | | ↓ | | | | ZINC |
| .12 | | | T. BLANK | | | | | | | | | | ↓ | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: SIGNATURE/ORGANIZATION | [signature] Sampler | DATE 6/14/17 | TIME |
| RECEIVED BY: SIGNATURE/ORGANIZATION | [signature] | DATE 6/14/17 | TIME 1055 |
| RELINQUISHED BY: SIGNATURE/ORGANIZATION | | DATE | TIME |
| RECEIVED BY: SIGNATURE/ORGANIZATION | | DATE | TIME |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: SIGNATURE/ORGANIZATION | | DATE | TIME |
| RECEIVED BY: SIGNATURE/ORGANIZATION | | DATE | TIME |
| SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS | |
| SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS | |

NOTES: TEMP. ON ARRIVAL 9.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

# ATTACHMENT #4: SOIL ANALYTICAL TABLES

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL ANALYTICAL DATA (Metals and Detected VOCs)
RACER - Flint West #12990

| | Sample ID | | | SB124-4 | SB124-10 | SB124-21 | SB125-4 | SB125-13 | SB125-19 | SB126-4 | SB126-11 | SB126-15 | SB127-4 | SB127-8 | SB127-15 | SB127-20 | SB128-3 | SB128-7 | SB128-10 | SB129-4 | SB129-8 | SB129-18 | SB130-4 | SB130-10 | SB130-18 | SB131-4 | SB131-10 | SB131-18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/21/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 | 4/22/14 |
| **ANALYTE (ug/kg)** | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 5,800.00 | 5,800.00 | D&G=B | 1,130.00 | 1,100.00 | 1,830.00 | 570.00 | 1,440.00 | 1,410.00 | 1,300.00 | 1,250.00 | 1,180.00 | 410.00 | 1,630.00 | 2,060.00 | 1,780.00 | 500.00 | 1,550.00 | 1,150.00 | 2,790.00 | 1,740.00 | 1,460.00 | 3,580.00 | 1,700.00 | 1,980.00 | 1,630.00 | 1,300.00 | 2,080.00 |
| Chromium | 18,000.00 | 18,000.00 | D&G=B | 1,220.00 | 1,460.00 | 3,350.00 | 2,050.00 | 3,260.00 | 4,240.00 | 1,220.00 | 2,920.00 | 2,870.00 | 1,980.00 | 2,560.00 | 4,540.00 | 610.00 | 1,460.00 | 2,860.00 | 5,890.00 | 2,550.00 | 4,080.00 | 4,730.00 | 3,090.00 | 1,150.00 | 2,770.00 | 1,640.00 | 2,800.00 | 2,620.00 |
| Copper | 5,800,000.00 | 120,000.00 | GX | 1,700.00 | 2,300.00 | 8,200.00 | 7,400.00 | 6,100.00 | 11,400.00 | 3,400.00 | 3,100.00 | 5,600.00 | 1,600.00 | 3,000.00 | 5,800.00 | 1,200.00 | 3,900.00 | 5,600.00 | 5,300.00 | 13,000.00 | 3,600.00 | 7,200.00 | 17,700.00 | 1,700.00 | 9,800.00 | 8,500.00 | 3,100.00 | 7,900.00 |
| Lead | 700,000.00 | 5,000,000.00 | GX | 2,510.00 | 3,120.00 | 7,580.00 | 13,800.00 | 5,100.00 | 8,590.00 | 2,280.00 | 3,790.00 | 5,470.00 | 4,710.00 | 5,740.00 | 7,330.00 | 950.00 | 6,250.00 | 11,400.00 | 6,950.00 | 104,000.00 | 6,100.00 | 7,420.00 | 123,000.00 | 2,110.00 | 6,510.00 | 36,400.00 | 4,740.00 | 6,020.00 |
| Selenium | 4,000.00 | 410.00 | G=B | | | 210.00 | | | 210.00 | | | 160.00 | | | | | | | | 130.00 | | 150.00 | 140.00 | | | | | |
| Zinc | 2,400,000.00 | 2,600,000.00 | G=B | 4,600.00 | 5,100.00 | 19,000.00 | 11,400.00 | 12,200.00 | 20,800.00 | 5,900.00 | 8,600.00 | 14,700.00 | 3,700.00 | 10,300.00 | 20,300.00 | 2,400.00 | 6,000.00 | 13,200.00 | 9,900.00 | 21,300.00 | 13,100.00 | 19,200.00 | 51,800.00 | 5,800.00 | 18,000.00 | 16,800.00 | 13,600.00 | 18,600.00 |
| **ANALYTE (ug/kg)** | DW | GSI | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Butanone (MEK) | 260,000.00 | 44,000.00 | | 45.00 | 71.00 | 56.00 | | 165.00 | 79.00 | 82.00 | 150.00 | 75.00 | 46.00 | 66.00 | 148.00 | 126.00 | 44.00 | 123.00 | 127.00 | 40.00 | 53.00 | 82.00 | 69.00 | 68.00 | 70.00 | 79.00 | 65.00 | 164.00 |
| Vinyl Chloride | 40.00 | 260.00 | | | | | | | 23.00 | | | | | | | | | | | | | | | | 73.00 | | | 90.00 |
| 1,1-Dichloroethene | 140.00 | 2,600.00 | | | | | | | | | | | | | | | | | | | | | | | 34.00 | | | 18.00 |
| trans-1,2-Dichloroethene | 2,000.00 | 30,000.00 | | | | | | | | | | | | | | | | | | | | | | | 100.00 | | | 62.00 |
| 1,1-Dichloroethane | 18,000.00 | 15,000.00 | | | | | | | | | | | | | | | | | | | | | | | 69.00 | | | 35.00 |
| cis-1,2-Dichloroethene | 1,400.00 | 12,000.00 | | | | 58.00 | | | 350.00 | | | | | | | | | | | | | 300.00 | | | 6,380.00 | | | 2,820.00 |
| Tetrahydrofuran | 1,900.00 | 220,000.00 | | **170.00** | 190.00 | **190.00** | **150.00** | **180.00** | **180.00** | 140.00 | 190.00 | 210.00 | 190.00 | 190.00 | 170.00 | 190.00 | 150.00 | 150.00 | 140.00 | 150.00 | 180.00 | 180.00 | 180.00 | 170.00 | 160.00 | 150.00 | 180.00 | 160.00 |
| Chloroform | 1,600.00 | 7,000.00 | | | | | | | 16.00 | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 4,000.00 | 1,800.00 | | | | | | | 11.00 | | | | | | | | | | | | | 33.40 | | | | | | |
| Benzene | 100.00 | 4,000.00 | | | | | | | | | | | | | | | | | | | | | | | 36.00 | | | |
| Trichloroethene | 100.00 | 4,000.00 | | | | 1,420.00 | | | 3,650.00 | | | | | | | | | | | | | 6,170.00 | | | 6,080.00 | 28.00 | | 12,160.00 |
| Toluene | 16,000.00 | 5,400.00 | | 11.00 | | | | | | | | | | | | | | | | 13.00 | | 19.00 | 31.00 | | | 45.00 | | |
| Ethylbenzene | 1,500.00 | 360.00 | | | | | | | | | | | | | | | | | | | | | 15.00 | | | | | |
| Total Xylenes | 5,600.00 | 820.00 | | | | | | | | | | | | | | | | | | 21.00 | | | 92.00 | | | 91.00 | | |
| Isopropylbenzene | 91,000.00 | 3,200.00 | | | | | | | | | | | | | | | | 16.00 | | | | | 13.00 | | | | | |
| n-Propylbenzene | 1,600.00 | NC | | | | | | | | | | | | | | | | | | | | | 16.00 | | | | | |
| 1,2 -Dichlorobenzene | 14,000.00 | 280.00 | | | | | | | | | | | | | | | | 21.00 | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 2,100.00 | 570.00 | | | | | | | | | | | | | | | | | | 14.00 | | | 24.00 | | | 22.00 | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | | | | | | | | | | | 13.50 | | | | | 13.40 | | | 11.80 | | |
| Naphthalene | 35,000.00 | 730.00 | | 10.80 | | | 14.40 | 17.00 | | 13.70 | | | 12.90 | | 14.30 | | | 345.70 | 46.90 | 39.50 | 12.50 | | 51.50 | | | 100.30 | | |
| 2-Methylnaphthalene | 57,000.00 | 4,200.00 | | 10.20 | | | 14.00 | **39.00** | | 13.00 | 19.00 | | | | 30.00 | | 10.00 | 820.00 | 46.00 | 43.00 | | | 54.10 | | | 71.80 | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| GX | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |

G

SOIL ANALYTICAL DATA (Detected VOCs)
RACER - Flint West #12990

| | Sample ID | | | SB132-12 | SB132-15 | SB133-17 | SB133-19 | SB133-20 |
|---|---|---|---|---|---|---|---|---|
| | Date Collected | | | 7/10/14 | 7/10/14 | 7/10/14 | 7/10/14 | 7/10/14 |
| **ANALYTE (ug/kg)** | **DW** | GSI | | | | | | |
| 2 Butanone (MEK) | 260,000.00 | 44,000.00 | | | | | | |
| Vinyl Chloride | 40.00 | 260.00 | | **180** | **89** | **46** | | |
| 1,1-Dichloroethene | 140.00 | 2,600.00 | | | | | | |
| trans-1,2-Dichloroethene | 2,000.00 | 30,000.00 | | | | 18.00 | | |
| 1,1-Dichloroethane | 18,000.00 | 15,000.00 | | | | 13.00 | | |
| cis-1,2-Dichloroethene | 1,400.00 | 12,000.00 | | **2200.00** | 1200.00 | **1990.00** | 530.00 | 270.00 |
| Tetrahydrofuran | 1,900.00 | 220,000.00 | | 1500.00 | 300.00 | 150.00 | 160.00 | 117.00 |
| Chloroform | 1,600.00 | 7,000.00 | | | | | | |
| 1,1,1-Trichloroethane | 4,000.00 | 1,800.00 | | | | 24.90 | 35.20 | 17.80 |
| Benzene | 100.00 | 4,000.00 | | | | | | |
| Trichloroethene | 100.00 | 4,000.00 | | **29500** | **13700** | **11680** | **10860** | **7520** |
| Tetrachloroethene | 100.00 | 1,200.00 | | | | | 17 | |
| Toluene | 16,000.00 | 5,400.00 | | | | | | |
| Ethylbenzene | 1,500.00 | 360.00 | | | | | | |
| Total Xylenes | 5,600.00 | 820.00 | | | | | | |
| Isopropylbenzene | 91,000.00 | 3,200.00 | | | | | | |
| n-Propylbenzene | 1,600.00 | NC | | | | | | |
| 1,2 -Dichlorobenzene | 14,000.00 | 280.00 | | | | | | |
| 1,2,4-Trimethylbenzene | 2,100.00 | 570.00 | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | |
| Naphthalene | 35,000.00 | 730.00 | | | | | | |
| 2-Methylnaphthalene | 57,000.00 | 4,200.00 | | | | 15.00 | 12.00 | 9.20 |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds DW criteria |
| X | Exceeds GSI criteria |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| GX | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |

G

SOIL ANALYTICAL DATA
RACER - Flint West #12990

| | | | Sample ID | SB134-18 | SB135-19 | SB136-19 | SB137-18 | SB134-20 | SB135-21 | SB136-21 | SB137-20.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Date Collected | 12/22/14 | 12/22/14 | 12/22/14 | 12/22/14 | 12/22/14 | 12/22/14 | 12/22/14 | 12/22/14 |
| ANALYTE (ug/kg) | DW | GSI | | | | | | | | | |
| Arsenic | 4,600 | 4,600 | | 380 | 1,900 | 1,870 | 1,660 | 1,690 | 2,080 | 3,350 | 3,040 |
| Cadmium | 6,000 | 5,400 | G | | | | | | | | |
| Copper | 5,800,000 | 120,000 | G | 4,500 | 4,000 | 4,600 | 4,200 | 3,000 | 3,900 | 4,300 | 4,500 |
| Lead | 700,000 | 7,700,000 | G | 5,690 | 2,850 | 3,060 | 2,810 | 3,380 | 2,890 | 3,740 | 3,240 |
| Selenium | 4,000 | 400 | | | | | | | | | |
| Zinc | 2,400,000 | 260,000 | G | 5,900 | 17,500 | 13,600 | 13,500 | 19,500 | 15,300 | 18,800 | 27,300 |
| 2 Butanone (MEK) | 260,000 | 44,000 | | | | | | | | | |
| Vinyl Chloride | 40 | 260 | | | 14 | | | | | | 56 |
| 1,1-Dichloroethene | 140 | 2,600 | | | | | | | | | |
| trans-1,2-Dichloroethene | 2,000 | 30,000 | | | 10.9 | | 14 | | | | |
| 1,1-Dichloroethane | 18,000 | 15,000 | | | | | | | | | |
| cis-1,2-Dichloroethene | 1,400 | 12,000 | | | 1,100 | 340 | 670 | 120 | 800 | 450 | 290 |
| Tetrahydrofuran | 1,900 | 220,000 | | | | | | | | | |
| Chloroform | 1,600 | 7,000 | | | | | | | | | |
| 1,1,1-Trichloroethane | 4,000 | 1,800 | | | | 12.5 | 20.5 | | 8.7 | | |
| Benzene | 100 | 4,000 | | | | | | | | | |
| Trichloroethene | 100 | 4,000 | | | 7,890 | 8,760 | 4,250 | 2,040 | 6,540 | 9,390 | |
| Tetrachloroethene | 100 | 1,200 | | | | | | | | | |
| Toluene | 16,000 | 5,400 | | 70 | | | | | | | |
| Ethylbenzene | 1,500 | 360 | | 16 | | | | | | | |
| Total Xylenes | 5,600 | 820 | | 85 | | | | | | | |
| Isopropylbenzene | 91,000 | 3,200 | | | | | | | | | |
| n-Propylbenzene | 1,600 | NC | | 14 | | | | | | | |
| 1,2 -Dichlorobenzene | 14,000 | 280 | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 2,100 | 570 | | | | | | | | | |
| 1,2,3-Trimethylbenzene | NC | NC | | | | | | | | | |
| Naphthalene | 35,000 | 730 | | 36.6 | | | | | | | |
| 2-Methylnaphthalene | 57,000 | 4,200 | | 29 | | | | | | | |

NOTES:

| | |
|---|---|
| | Blank cells indicate no detectable concentrations |
| X | Exceeds residential and non-residential DW criteria |
| X | Exceeds GSI criteria calculated based on 257ppm total hardness in the Flint River |
| X | Exceeds both DW and GSI criteria |
| X | Compound also found in associated method blank, suggesting a laboratory artifact. |
| NC | Insufficient data to develop criterion/no criterion |
| GX | Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River |