CONESTOGA-ROVERS & ASSOCIATES

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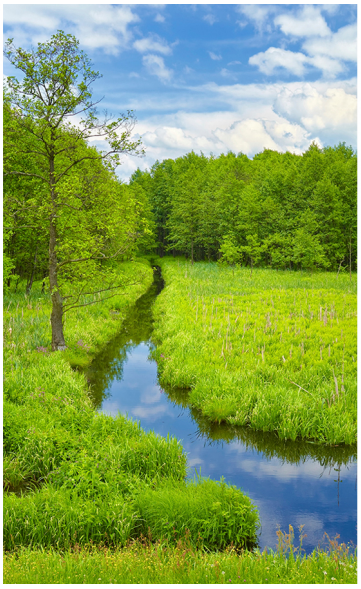

Addendum to the June 2011 Request for: Resource Conservation and Recovery Act Corrective Action Complete with Controls Determination

Prepared for: Revitalizing Auto Communities Environmental Response (RACER) Trust

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Table of Contents

Page

Section 1.0 Introduction 1

1.1 Purpose 1

1.2 Report Organization 2

Section 2.0 Background 2

2.1 AOI 50 – DUCO Stores Area 2

2.2 AOI 53A - Confirmed Release C-0014-12 4

Section 3.0 Selected Corrective Measures 5

3.1 Institutional Controls 5

3.2 AOI 50 and AOI 53A 6

3.2.1 AOI 50 6

3.2.2 AOI 53A 8

Section 4.0 Conclusions 9

Section 5.0 References 9

List of Figures
(Following Text)

Figure 1.1 Facility Location

Figure 1.2 Facility Plan

Figure 2.1 AOI 50 – DUCO Stores Site Plan

Figure 2.2 AOI 53A USTs Site Plan

Figure 3.1 AOI 50: DUCO Stores - Soil Analytical Results

Figure 3.2 AOI 50: DUCO Stores - Groundwater Analytical Results

List of Tables
(Following Text)

Table 1.1 Investigation and Corrective Measures Summary

Table 3.1 AOI 50 Soil Analytical Results

Table 3.2 AOI 50 Groundwater Analytical Results

Table 3.3 AOI 53A Soil Analytical Results

Table 3.4 AOI 53A Groundwater Analytical Results

List of Appendices

Appendix A August 3, 2011 U.S. USEPA Letter

Appendix B USEPA Email Correspondence

Appendix C Restrictive Covenant

Appendix D November 28, 2012 RCRA Corrective Action - Releases associated with AOI 50 and AOI 53A

Appendix E September 24, 2013 Groundwater Sampling Event Results and Request to Amend the Corrective Action Complete with Controls Report

Appendix F February 4, 2014 Summary for AOI 50 -DUCO Stores – Building 34

List of Acronyms

AOI	Area of Interest
CACC	Corrective Action Complete with Controls Determination
CMP	Corrective Measures Proposal
CRA	Conestoga-Rovers & Associates
DCC	Direct Contact Criteria
DWC	Drinking Water Criteria
DWPC	Drinking Water Protection Criteria
FESL	Flammability/Explosivity Screening Level
GMC	General Motors Corporation
GSIC	Groundwater Surface Water Interface Criteria
GSIPC	Groundwater Surface Water Interface Protection Criteria
GVIIC	Groundwater Volatilization to Indoor Air Inhalation Criteria
IM	Interim Measure
MDEQ	Michigan Department of Environmental Quality
MLC	Motors Liquidation Company
RACER	Revitalizing Auto Communities Environmental Response (RACER) Trust
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SVIIC	Soil Volatilization to Indoor Air Inhalation Criteria
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Section 1.0 Introduction

1.1 Purpose

Conestoga-Rovers & Associates (CRA) has prepared this Addendum to the June 2011 Request for Resource Conservation and Recovery Act (RCRA) Corrective Action Complete with Controls Determination (CACC) (CRA, 2011) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust (the current Site owner through bankruptcy) for the Centerpoint Business Campus located in Pontiac, Michigan (Site or Facility). The United States Environmental Protection Agency (USEPA) Identification Number for the Facility is MID 005 356 902. The Facility location is presented on Figure 1.1

Previously, a Request for RCRA CACC Determination was submitted in January 2010 and subsequently updated in June 2011 based on the USEPA Final Guidance on Completion of Corrective Action Activities at RCRA Facilities (USEPA, February 2003) and with input from USEPA Region 5 personnel. The June 2011 Request for CACC Determination summarized the current Site conditions selected Corrective Measures and remaining Corrective Measure activities.

In a letter dated August 3, 2011, the USEPA agreed that the RCRA Corrective Action at the Facility was complete with the exception of AOI 50, which would be closed under the Michigan Act 451, Part 213 regulations and include institutional controls. A copy of this letter is included in Appendix A. In an email dated March 14, 2012, RACER confirmed that USEPA and MDEQ agreed to address the confirmed releases associated with AOI 50 (DUCO Stores) through the RCRA Corrective Action process. The USEPA correspondence email is presented in Appendix B.

In February 2012, two 12,000 gallon USTs were removed near AOI 53 and impacted pea gravel was encountered near the fill-port side of the gasoline UST. A confirmed release (C-0014-12) was reported to the MDEQ on February 24, 2012. The confirmed release (C-0014-12) was added to the list of corrective measure activities remaining at the Site to be addressed as part of the final CACC determination and is hereinafter referred to as AOI 53A. Therefore, in summary, the following corrective action areas were not included in the June 2011 Request for CACC Determination:

- AOI 50 (DUCO Stores)
- AOI 53A (Confirmed release C-0014-12)

In addition to the above areas that were not included in the June 2011 Request for CACC Determination and based on the evolution of appropriate methods to evaluate and mitigate the potential vapor intrusion pathway, institutional controls to address potential vapor intrusion at AOIs 52 and 53 were also proposed, approved by USEPA, and instituted. The Facility Plan showing the locations of these AOIs is presented on Figure 1.2. The Corrective Measures summary is presented in Table 1.1.

Based on the completed interim and corrective measures at the Site, as well as the recording of the institutional controls (Appendix C), no ongoing operation and maintenance is required and corrective action for the entire Site has been completed. The remainder of this report summarizes the corrective measure activities not previously included in the June 2011 Request for CACC Determination.

1.2 Report Organization

This Report is organized as follows:

Section 2.0 - Background - describe AOI 50 and AOI 53A, history of these areas, and investigation and remediation activities

Section 3.0 - Corrective Measures Activities Completed – summarizes the activities completed at the Facility associated with Corrective Action that have been completed since the submittal of the June 2011 Request for CACC Determination

Section 4.0 - Conclusions

Section 5.0 - References Cited

Figures, tables, and appendices are presented following the text.

Section 2.0 Background

2.1 AOI 50 – DUCO Stores Area

The DUCO Stores UST area consisted of eight former steel USTs, as described below (GMC, June 1992), and as shown on Figure 2.1. All of the DUCO Stores USTs were removed in 1991.

Tank	*Contents*	*Tank Material*	*Size (gallons)*	*Year Installed*	*Pipe Material*	*Pipe Buried*
1	Gasoline	Steel	12,000	1927	Steel	No
2	Gasoline	Steel	12,000	1927	Steel	No
3	RR End Lube	Steel	12,000	1927	Steel	No
4	Glycol	Steel	12,000	1927	Steel	No
5	Axle Oil 80w90	Steel	12,000	1927	Steel	No
6	#1 Diesel	Steel	12,000	1927	Steel	No
7	#1 Diesel	Steel	12,000	1927	Steel	No
8	#1 Diesel	Steel	12,000	1927	Steel	No

According to the NERI report entitled "Final Report on the Findings of the Petrex Soil Gas Survey Conducted for the General Motors Truck and Bus Group at the DUCO Stores Tank Farm Site in Pontiac, Michigan" (NERI, September 1990), approximately 500 gallons of gasoline were released in December 1989 when a gasoline UST was overfilled.

On February 2, 1990, gasoline odors were detected in the Pontiac Central Power House (located to the south of DUCO Stores) and release #C-0235-90 was reported. The source was found to be gasoline which was infiltrating a 12-inch diameter sanitary sewer line which drains northerly from the powerhouse through Building 34. This sanitary sewer runs immediately to the west of the former DUCO Stores UST area. A pneumatic plug was inserted in the sewer line south of Building 34, and the sewer contents removed by vacuum tanker truck (CRA, May 1994).

In May 1990, a second gasoline release (#C-0776-90) was discovered near the DUCO Stores UST area. The gasoline was discovered infiltrating into a storm sewer near the area. The sewer was plugged and sewer contents removed by vacuum tanker truck (CRA, May 1994).

In September 1991, the third release (#C-1831-91) was reported when diesel fuel was observed to be seeping into the north end of the excavation during the UST removal activities. A bermed area was constructed in the north end of the excavation to contain the seepage and the groundwater and product from this area was pumped off on a daily basis. No more than ¼-inch of floating free product (diesel fuel) was observed at any time. A total of less than 100 gallons of diesel fuel was recovered and transported by vacuum tanker to the GM Truck and Bus Group – Pontiac East waste water treatment plant for treatment (Maecorp, October 1991).

In 1998, GM began RCRA Corrective Action activities at the Pontiac Centerpoint Campus (PCC) under an USEPA Consent Order. RACER's Pontiac West property is a portion of PCC. USEPA issued a Final Decision in 2006 for the Facility under the RCRA Corrective Action program

identifying corrective measures for the release at DUCO Stores would be addressed under the closure requirements of Michigan Act 451, Part 213. General Motors (GM) undertook various actions to investigate and remediate the releases at DUCO Stores under Michigan Act 451, Part 213 requirements. In October 2010, a Leaking Underground Storage Tank Closure Report (Closure Report) for DUCO Stores (confirmed releases C-0235-90, C-0776-90, C-1831-91) was submitted to the Michigan Department of Environmental Quality (MDEQ). In letters dated April 20, 2011 and June 20, 2011, the MDEQ completed an audit of corrective actions to the Closure Report.

On February 10, 2012, CRA submitted a letter to the USEPA addressing the comments from the MDEQ audit of corrective actions. In an email dated March 14, 2012, RACER confirmed that USEPA and MDEQ agreed to address the confirmed releases associated with DUCO Stores through the RCRA Corrective Action process. Subsequently, as the lead agency, USEPA requested an additional investigation of the area.

On July 30, 31 and August 1, 2012, a field investigation was completed to further characterize VOC impacts located west of the former UST basin in the former hazardous materials storage area and VOC impacts located east of the former UST footprint. Analytical results indicated concentrations exceeded applicable Part 201 cleanup criteria at several soil boring locations; however, the exceedances were delineated at the Site. These results were provided to USEPA in a letter dated November 28, 2012. The letter is included as Appendix D.

At the request of USEPA, a groundwater monitoring event was conducted on July 18, 2013 to confirm historic groundwater analytical results. The results of the groundwater monitoring event were consistent with historical results and the results were provided to USEPA In a letter dated September 24, 2013. The letter is included as Appendix E.

2.2 AOI 53A - Confirmed Release C-0014-12

In February 2012, two 12,000 gallon USTs, one gasoline and one diesel/premium unleaded fuel, were removed from the fueling station located outside of Former Building 33 (AOI 53), as shown on Figure 2.2. During UST removal, impacted pea gravel was encountered near the fill-port side of the gasoline UST and ethylbenzene was detected in the confirmatory soil samples collected. A confirmed release (C-0014-12) was reported to the MDEQ on February 24, 2012. On April 11, 2012, RACER requested CRA to complete a scope of work to investigate this confirmed release through the RCRA Corrective Action process. A scope of work to investigate the VOC impacts associated was provided to USEPA on April 16, 2012 and approved via email on June 8, 2012. A field investigation was conducted on August 1, 2012 to

collect soil and groundwater samples to confirm impacts were removed during the UST removal activities. A summary of the field investigation is presented in the November 28, 2012 letter to USEPA. The letter is included as Appendix D.

Section 3.0 Selected Corrective Measures

Corrective measures for the Facility were proposed in the CMP (CRA, April 2006). The final corrective measures as selected by USEPA were summarized in the Final Decision (USEPA, August 2006). Upon completion of the 2011 CACC (CRA, 2011), the only remaining corrective measures necessary were for AOI 50. In 2012, AOI 53A was discovered and it was agreed with USEPA it would also be addressed through the RCRA Corrective Action process. At the request of USEPA, AOI 50 and AOI 53 (including AOI 53A) were to include additional Site restrictions to address potential vapor intrusion. Therefore, as agreed with USEPA, the remaining corrective measures to be completed at the Site were limited to AOI 50 and AOI 53 (including AOI 53A) as described below:

- AOIs 50 and 53 - Institutional controls to prohibit use of shallow groundwater for potable use, restrict land use for any purpose other than Non-Residential, and complete a vapor intrusion investigation or mitigation (in AOIs 50 and 53) prior to building occupancy or new building construction.
- AOI 50 – Address UST Release #s C-0235-90, C-0776-90, C-1831-91 through the RCRA Corrective Action process.
- AOI 53A – Address UST Release # C-0014-12 through the RCRA Corrective Action process.

The corrective measures for each AOI identified in the 2011 CACC, AOI 50 and AOI 53 (including AOI 53A) are summarized in Table 1.1.

3.1 Institutional Controls

A Declaration of Restrictive Covenant, which was approved by USEPA, was recorded with the Oakland County Register of Deeds, Liber 47370, Page 378 (RC-WHMD-111-14-006, dated August 21, 2014 and recorded September 4, 2014). The Declaration of Restrictive Covenant was recorded to: 1) prohibit use of shallow groundwater for potable use on areas of the property shown on Exhibit 2 of Appendix A; 2) prohibit the construction of wells or other devices used to extract groundwater for consumption, irrigation or any other purpose except to evaluate groundwater quality, to remediate or short–term dewatering; 3) restrict the uses of the property shown on Exhibit 2 of the RC for any purpose other than those characterized by

the MDEQ as Non-Residential, unless otherwise agreed to by RACER and USEPA and in consultation with MDEQ; and 4) requires a vapor intrusion investigation and/or vapor barrier/mitigation system be conducted and/or installed prior to building occupancy or new construction of a structure at AOI 50, AOI 52, and AOI 53. Appendix C presents the referenced restrictive covenant. The legal description and drawing illustrating description of vapor intrusion restriction areas is presented in Exhibit 4 of the RC (Appendix C).

Additionally, as Site redevelopment activities may warrant, portions of the property may be separated for sale, and the Restrictive Covenants for the individual parcel may be modified to only include restrictions appropriate for the parcel, upon USEPA approval and in consultation with the MDEQ.

3.2 AOI 50 and AOI 53A

Per the correspondence between RACER and USEPA (see Appendix B), releases from USTs at AOI 50 and AOI 53A will be addressed through the RCRA Corrective Action process.

3.2.1 AOI 50

A letter submitted to the USEPA on February 4, 2014 summarized available information at AOI 50 and presented a storm sewer and GSI evaluation, applicable criteria, summary of results and rationale for concluding there is no DNAPL/free product present at AOI 50. For the purposes of this addendum, applicable criteria and results are summarized in the Sections below. The February 4, 2014 letter is included as Appendix F.

Applicable Comparison Criteria for Investigations at AOI 50

The DUCO Stores UST systems have been removed from the ground and the former hazardous materials storage area is no longer used for hazmat storage, eliminating the apparent sources of the releases. Current restrictions at the Site include the following:

- Restrict land use to industrial/commercial uses
- Restrict resource use to prevent shallow groundwater from being used for drinking water
- Prohibit construction of wells
- Requires soil vapor assessment and/or management near the former hazardous materials storage area as proposed in the November 28, 2012 letter titled "*RCRA Corrective Action - Releases associated with AOI 50 and an UST near AOI 53*" (located in Appendix D)

These restrictions will prevent complete exposure pathways for all residential pathway criteria, the soil volatilization to indoor air inhalation criteria (SVIIC), groundwater volatilization to indoor air inhalation criteria (GVIIC), drinking water criteria (DWC) and drinking water protection criteria (DWPC). Therefore, no further action is required for residential exceedances and the SVIIC, GVIIC, DWC and DWPC pathway exceedances.

Based on the current and planned future Site restrictions, and Site specific characteristics described above, the following Non-Residential criteria are appropriate for further comparison with Site data:

Soil:

- Groundwater Surface Water Interface Protection Criteria (GSIPC)
- Direct Contact Criteria (DCC)
- Soil Saturation Concentration Screening (Csat)

Groundwater:

- Groundwater Surface Water Interface Criteria (GSIC)
- Water Solubility
- Flammability/Explosivity Screening Level (FESL)

Summary of Soil Results

Positive Sudan IV jar tests were identified in the 2007 and 2008 soil investigation at SB-3-08 (12.5-13 feet bgs) and SB-4-08 (14-14.5 feet bgs). Groundwater samples were collected from these locations at similar depth intervals and analytical results did not contain concentrations indicative of potential solubility exceedances. Further, no evidence of NAPL was observed in either groundwater sampling location.

Upon review of soil analytical results from 2007-2012, constituents did not exceed applicable Part 201 criteria except GSIPC at SB-4-08 (10-12 feet bgs), SB-5-08 (15-16 feet bgs), SB-7-08 (10.5-12 feet bgs) and SB-1-12 (10-12 feet bgs) as identified below:

- SB-4-08 (10-12 feet bgs) exceeded GSIPC for selenium
- SB-5-08 (15-16 feet bgs) exceeded GSIPC for arsenic
- SB-7-08 (10.5-12 feet bgs) exceeded GSIPC for selenium, arsenic, 1,1-DCE and 1,1,1-DCA
- SB-1-12 (10-12 feet bgs) exceeded GSIPC for 1,1,1-DCA and TCE

Chlorinated VOC exceedances from SB-1-12 and SB-7-08 were delineated by soil borings SB-18-12, SB19-12, SB-2-12 and SB-17-12 to the north, east, south and west, respectively. Therefore, soil impacts with chlorinated VOCs above applicable Part 201/2013 criteria are delineated at AOI 50. The metal impacts at SB-04-08 and SB-5-08 are not considered mobile constituents and unlikely to leach to groundwater and migrate outside AOI 50. Soil analytical results for AOI 50 are presented on Figure 3.1 and in Table 3.1.

Summary of Groundwater Results

Upon review of groundwater analytical results from 2008-2013, constituents did not exceed applicable Part 201/213 criteria except GSIC from borehole water at SB-3-08 and SB-4-08 as identified below:

- SB-3-08 exceeded GSIC for Isopropyl benzene
- SB-4-08 exceeded GSIC for benzene, ethylbenzene, 2-methylnaphthalene and naphthalene

Groundwater samples collected from monitoring wells MW34-01, MW34-02, MW34-03, MW34-04, MW34-05, MW34-06, MW34-07 and MW34-08 were below the most restrictive Part 201/2013 criteria to the north, east, south and west. Therefore, groundwater impacts above applicable Part 201/213 criteria are delineated at AOI 50. Groundwater analytical results for AOI 50 are presented on Figure 3.2 and in Table 3.2.

Based on data collected from the 2009 – 2013 investigations, soil and groundwater data confirms delineation of historic impacts associated with former DUCO Stores USTs and no further investigations are necessary.

3.2.2 AOI 53A

A field investigation was conducted on August 1, 2012 to collect soil and groundwater samples to confirm impacts were removed during the UST removal activities. A summary of the field investigation and results are presented in a November 28, 2012 letter to the USEPA and is provided in Appendix D.

Results

Analytical results from the August 1, 2012 field investigation indicated concentrations of soil and groundwater samples were below MDEQ Part 201 Cleanup Criteria except methlyene chloride. Methlyene chloride was detected in soil samples collected from SB-11-12 and

SB-15-12. The detections were flagged to indicate a laboratory contaminant in the blank sample. It is likely the elevated results of the methlyene chloride are a result of laboratory contaminants and not impacts from the former gasoline UST. Soil and groundwater analytical results for AOI 53A are presented on Tables 3.3 and 3.4.

Based on the analytical results from confirmatory soil and groundwater samples, CRA, on behalf of RACER, recommended no further action with respect to the subject release.

Section 4.0 Conclusions

Implementation of the Corrective Measures for the Facility, as outlined in the Final Decision (USEPA, August 2006) and in this request, is complete.

Based on the institutional controls implemented at the Facility, MDEQ Part 201 residential cleanup criteria and non-residential drinking water/drinking water protection criterion have been addressed.

Based on the information provided in this Addendum and the June 2011 CACC Request, RACER is requesting a RCRA Corrective Action Complete with Controls Determination from the USEPA for the GMC Centerpoint Business Campus located in Pontiac, Michigan, USEPA No. MID 005 356. It is understood that following USEPA approval of the June 2011 CACC Request and this Addendum to the CACC, the RCRA Corrective Action process at the Site will be complete.

Section 5.0 References

CRA, October 1995. Review of Existing Conditions Report.

CRA, December 1995. Supplemental Review of Existing Condition Report.

CRA, March 1998. Former J-Lot Area Construction Certification Report.

CRA, April 1999. RCRA Interim Measure Investigation and Design Report, SWMU 32-Former Coal Pile Storage Area.

CRA, April 2000. Addendum to RCRA Interim Measures Investigation and Design Report – Former Powerhouse Coal Pile Storage Area.

CRA, November 2004. Work Plan for the Remedial Pilot Study, Former Building 33, LNAPL Area 1.

CRA, October 2005. RCRA Facility Investigation Report.

CRA, April 2006. Corrective Measures Proposal.

CRA, May 2006. Remedial Pilot Study Report, Former Building 33, LNAPL Area 1.

CRA, August 2006. Corrective Measures Work Plan, Former Building 33, LNAPL Area 1.

CRA, April 2009. Corrective Measures Implementation Report, LNAPL Recovery by Multi-Phase Extraction, Former Building 33, LNAPL Area 1.

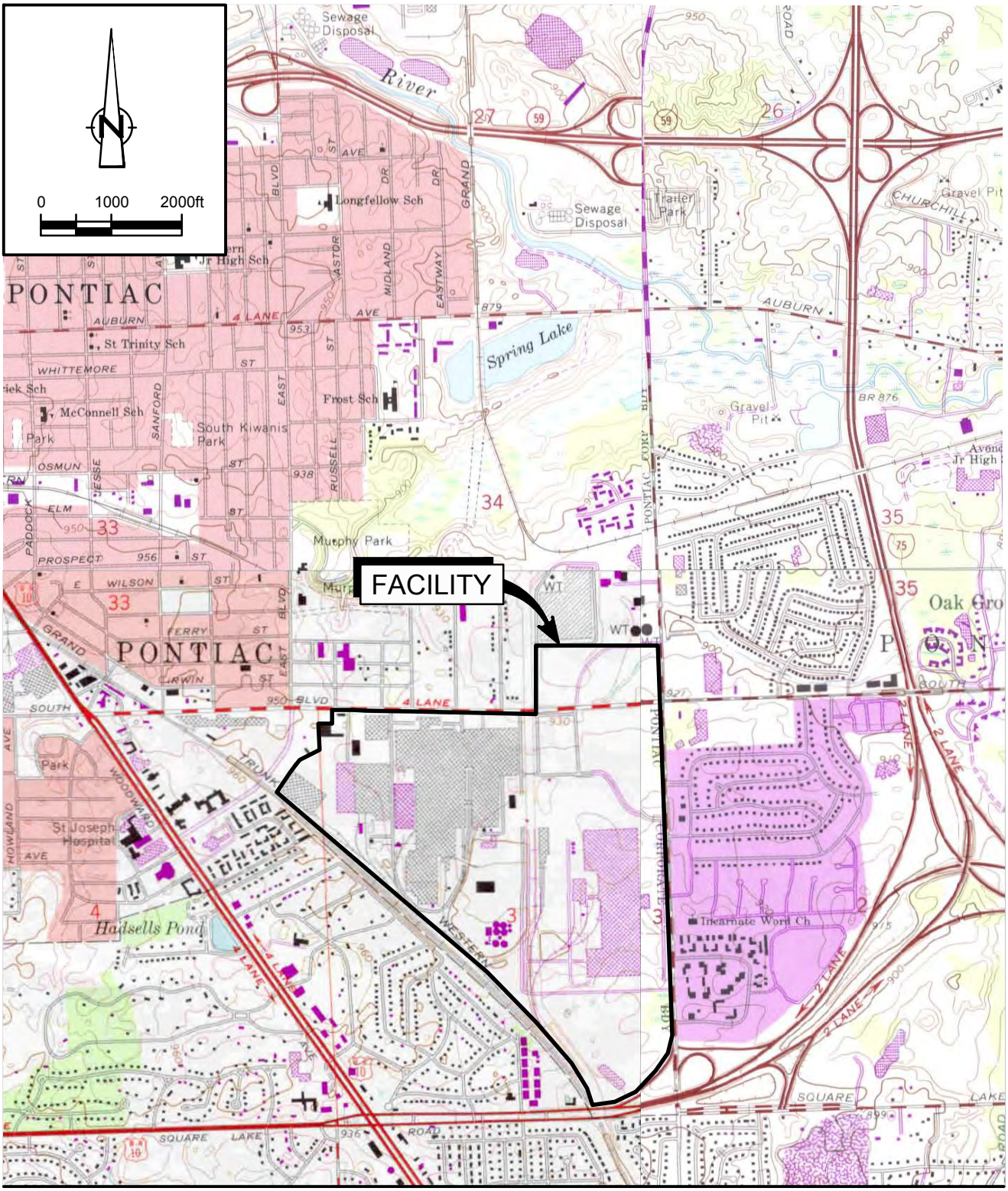
CRA, January 2010. Post-Corrective Measures Evaluation Report, AOI 53 – Former Building 33, LNAPL Area 1.

USEPA, February 2003. Final Guidance on Completion of Corrective Action Activities at RCRA Facilities.

USEPA, August 2006. Response to Comments and Final Decision.

CRA, Updated June 2011. Corrective Action Complete with Controls Determination.

Figures



SOURCE: USGS QUADRANGLE MAPS
BIRMINGHAM, ROCHESTER, PONTIAC NORTH,
AND PONTIAC SOUTH, MICHIGAN

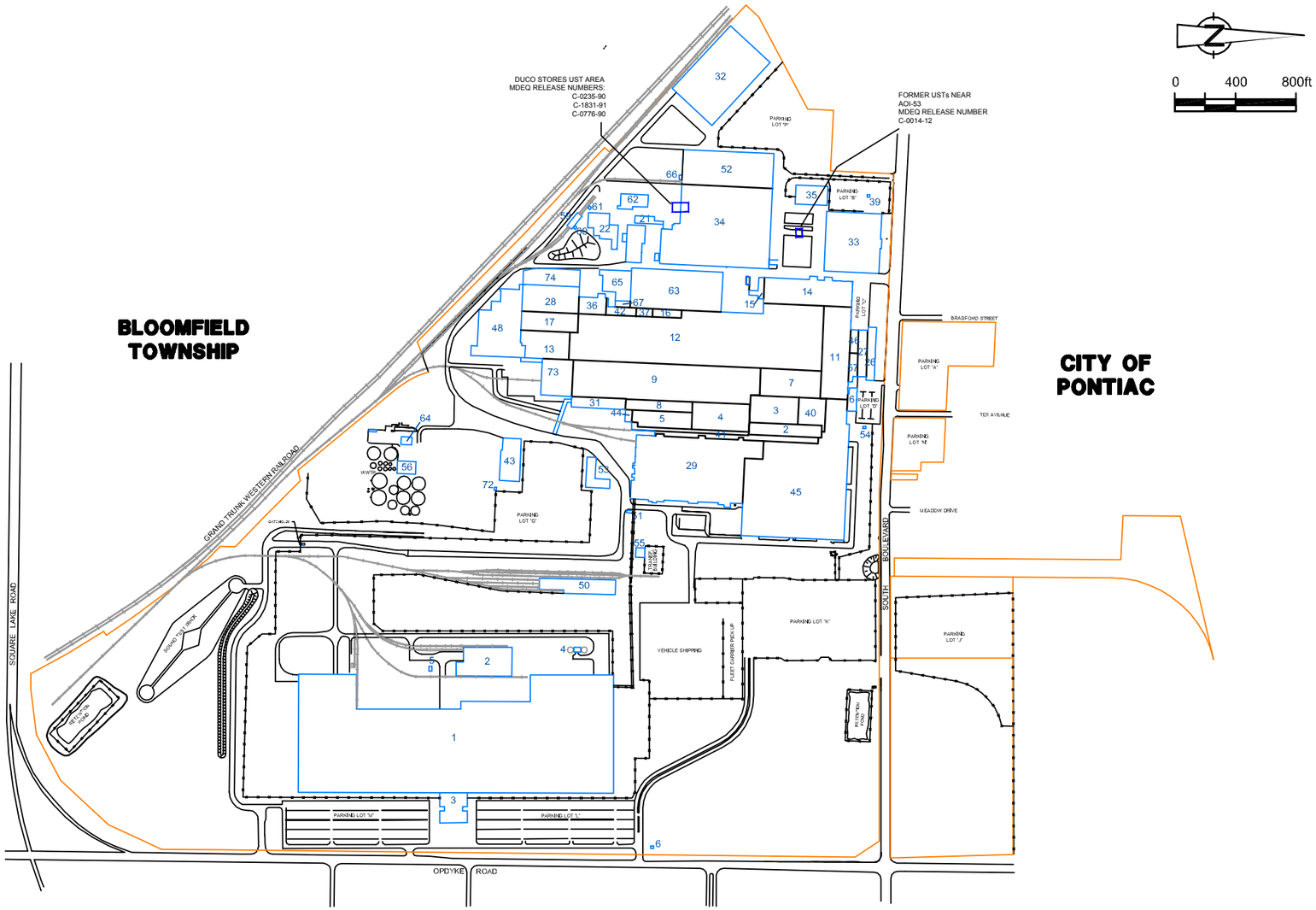
figure 1.1

FACILITY LOCATION
ADDENDUM TO REQUEST FOR RCRA CACCD DATED OCTOBER 2014
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

PONTIAC
MICHIGAN

CRA

007097-T05(076)GN-DE001 OCT 20/2014



LEGEND

PROPERTY BOUNDARIES

43 BUILDING NUMBER

figure 1.2

FACILITY PLAN
ADDENDUM TO REQUEST FOR RCRA CACCD DATED OCTOBER 2014
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

07097-03(046)GN-WA002 OCT 24/2005

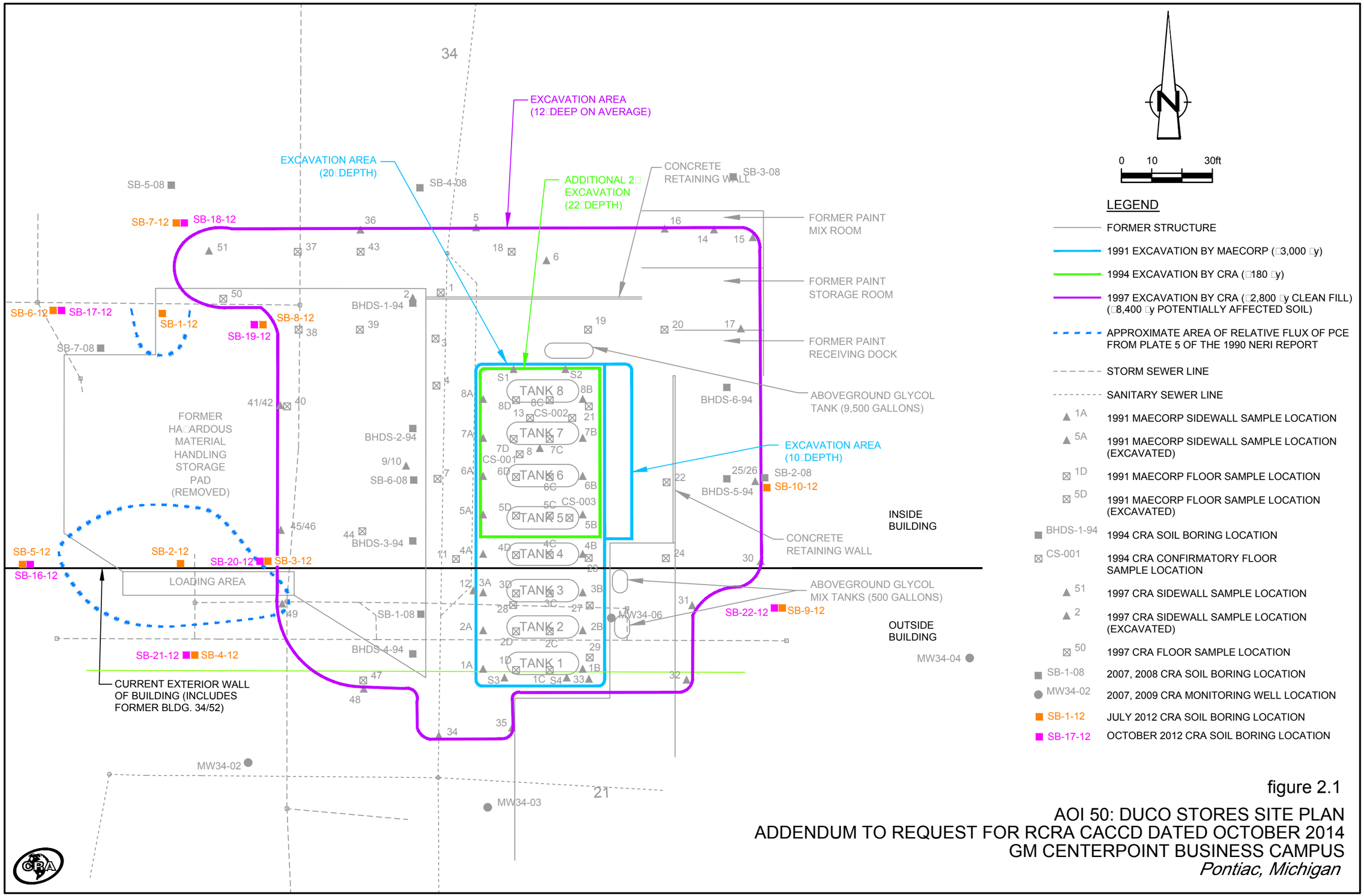


figure 2.1

AOI 50: DUCO STORES SITE PLAN
ADDENDUM TO REQUEST FOR RCRA CACCD DATED OCTOBER 2014
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

007097-T05(076)GN-DE003 OCT 20/2014

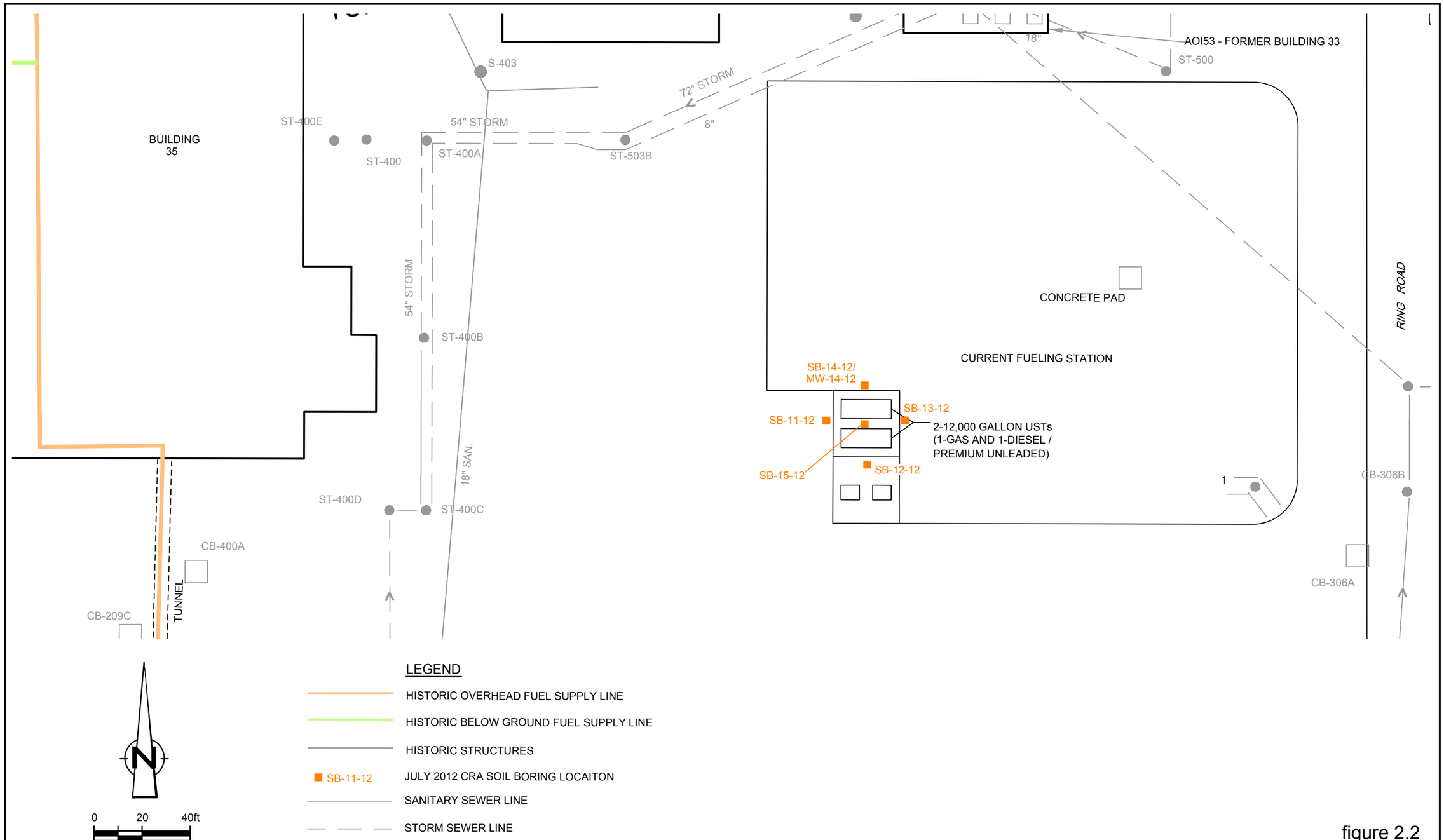
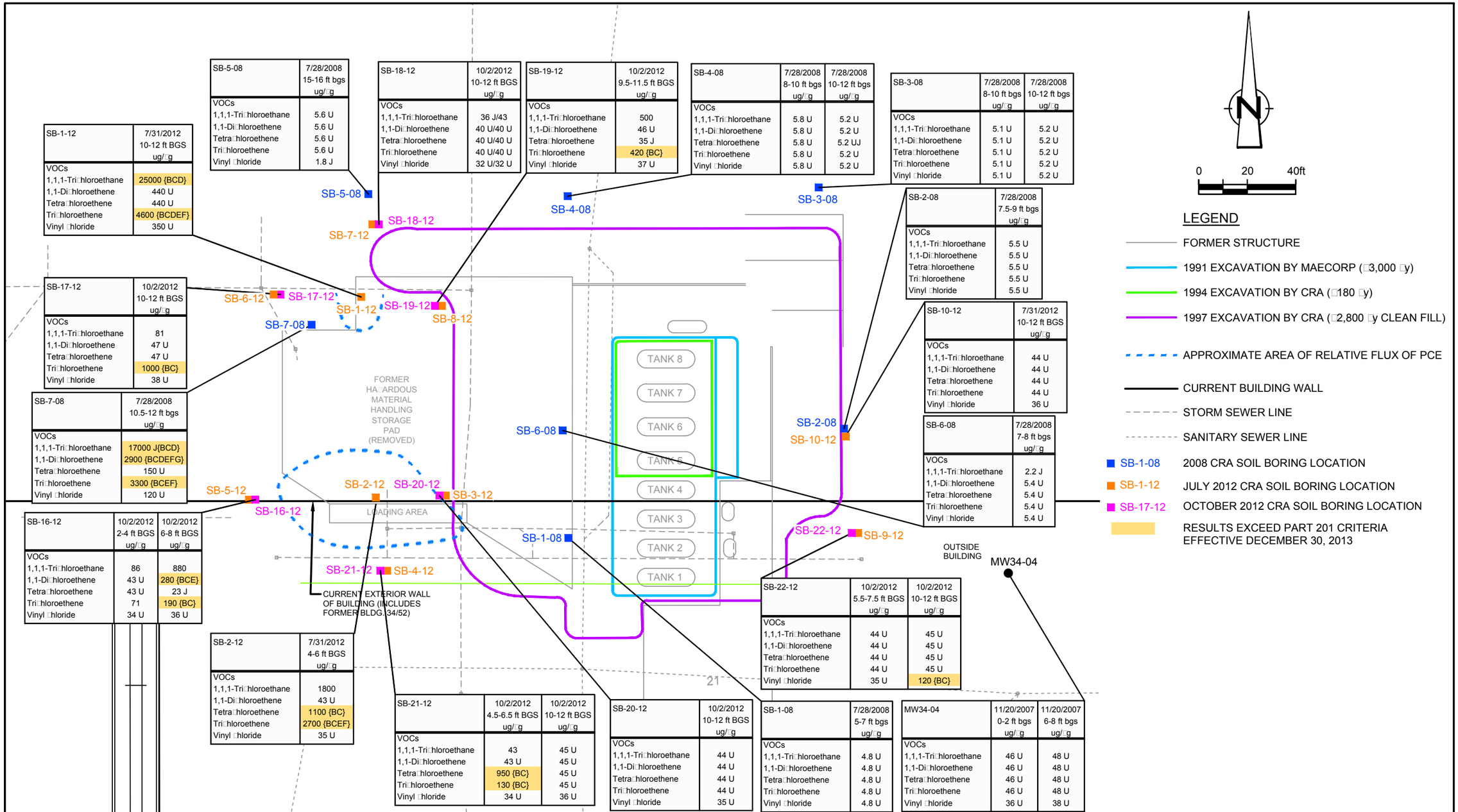


figure 2.2
AOI53: USTs SITE PLAN
ADDENDUM TO REQUEST FOR RCRA CACCD DATED OCTOBER 2014
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

007097-T05(076)GN-DE004 OCT 22/2014



SB-5-08	7/28/2008 15-16 ft bgs ug/□g
VOCs	
1,1,1-Tri□hloroethane	5.6 U
1,1-Di□hloroethene	5.6 U
Tetra□hloroethene	5.6 U
Tri□hloroethene	5.6 U
Vinyl □hloride	1.8 J

SB-18-12	10/2/2012 10-12 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	36 J/43
1,1-Di□hloroethene	40 U/40 U
Tetra□hloroethene	40 U/40 U
Tri□hloroethene	40 U/40 U
Vinyl □hloride	32 U/32 U

SB-19-12	10/2/2012 9.5-11.5 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	500
1,1-Di□hloroethene	46 U
Tetra□hloroethene	35 J
Tri□hloroethene	420 {BC}
Vinyl □hloride	37 U

SB-4-08	7/28/2008 8-10 ft bgs ug/□g	7/28/2008 10-12 ft bgs ug/□g
VOCs		
1,1,1-Tri□hloroethane	5.8 U	5.2 U
1,1-Di□hloroethene	5.8 U	5.2 U
Tetra□hloroethene	5.8 U	5.2 UJ
Tri□hloroethene	5.8 U	5.2 U
Vinyl □hloride	5.8 U	5.2 U

SB-3-08	7/28/2008 8-10 ft bgs ug/□g	7/28/2008 10-12 ft bgs ug/□g
VOCs		
1,1,1-Tri□hloroethane	5.1 U	5.2 U
1,1-Di□hloroethene	5.1 U	5.2 U
Tetra□hloroethene	5.1 U	5.2 U
Tri□hloroethene	5.1 U	5.2 U
Vinyl □hloride	5.1 U	5.2 U

SB-1-12	7/31/2012 10-12 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	25000 {BCD}
1,1-Di□hloroethene	440 U
Tetra□hloroethene	440 U
Tri□hloroethene	4600 {BCDEF}
Vinyl □hloride	350 U

SB-2-08	7/28/2008 7.5-9 ft bgs ug/□g
VOCs	
1,1,1-Tri□hloroethane	5.5 U
1,1-Di□hloroethene	5.5 U
Tetra□hloroethene	5.5 U
Tri□hloroethene	5.5 U
Vinyl □hloride	5.5 U

SB-17-12	10/2/2012 10-12 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	81
1,1-Di□hloroethene	47 U
Tetra□hloroethene	47 U
Tri□hloroethene	1000 {BC}
Vinyl □hloride	38 U

SB-10-12	7/31/2012 10-12 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	44 U
1,1-Di□hloroethene	44 U
Tetra□hloroethene	44 U
Tri□hloroethene	44 U
Vinyl □hloride	36 U

SB-7-08	7/28/2008 10.5-12 ft bgs ug/□g
VOCs	
1,1,1-Tri□hloroethane	17000 J{BCD}
1,1-Di□hloroethene	2900 {BCDEFG}
Tetra□hloroethene	150 U
Tri□hloroethene	3300 {BCEF}
Vinyl □hloride	120 U

SB-6-08	7/28/2008 7-8 ft bgs ug/□g
VOCs	
1,1,1-Tri□hloroethane	2.2 J
1,1-Di□hloroethene	5.4 U
Tetra□hloroethene	5.4 U
Tri□hloroethene	5.4 U
Vinyl □hloride	5.4 U

SB-16-12	10/2/2012 2-4 ft BGS ug/□g	10/2/2012 6-8 ft BGS ug/□g
VOCs		
1,1,1-Tri□hloroethane	86	880
1,1-Di□hloroethene	43 U	280 {BCE}
Tetra□hloroethene	43 U	23 J
Tri□hloroethene	71	190 {BC}
Vinyl □hloride	34 U	36 U

SB-22-12	10/2/2012 5.5-7.5 ft BGS ug/□g	10/2/2012 10-12 ft BGS ug/□g
VOCs		
1,1,1-Tri□hloroethane	44 U	45 U
1,1-Di□hloroethene	44 U	45 U
Tetra□hloroethene	44 U	45 U
Tri□hloroethene	44 U	45 U
Vinyl □hloride	35 U	120 {BC}

SB-2-12	7/31/2012 4-6 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	1800
1,1-Di□hloroethene	43 U
Tetra□hloroethene	1100 {BC}
Tri□hloroethene	2700 {BCEF}
Vinyl □hloride	35 U

SB-21-12	10/2/2012 4.5-6.5 ft BGS ug/□g	10/2/2012 10-12 ft BGS ug/□g
VOCs		
1,1,1-Tri□hloroethane	43	45 U
1,1-Di□hloroethene	43 U	45 U
Tetra□hloroethene	950 {BC}	45 U
Tri□hloroethene	130 {BC}	45 U
Vinyl □hloride	34 U	36 U

SB-20-12	10/2/2012 10-12 ft BGS ug/□g
VOCs	
1,1,1-Tri□hloroethane	44 U
1,1-Di□hloroethene	44 U
Tetra□hloroethene	44 U
Tri□hloroethene	44 U
Vinyl □hloride	35 U

SB-1-08	7/28/2008 5-7 ft bgs ug/□g
VOCs	
1,1,1-Tri□hloroethane	4.8 U
1,1-Di□hloroethene	4.8 U
Tetra□hloroethene	4.8 U
Tri□hloroethene	4.8 U
Vinyl □hloride	4.8 U

MW34-04	11/20/2007 0-2 ft bgs ug/□g	11/20/2007 6-8 ft bgs ug/□g
VOCs		
1,1,1-Tri□hloroethane	46 U	48 U
1,1-Di□hloroethene	46 U	48 U
Tetra□hloroethene	46 U	48 U
Tri□hloroethene	46 U	48 U
Vinyl □hloride	36 U	38 U

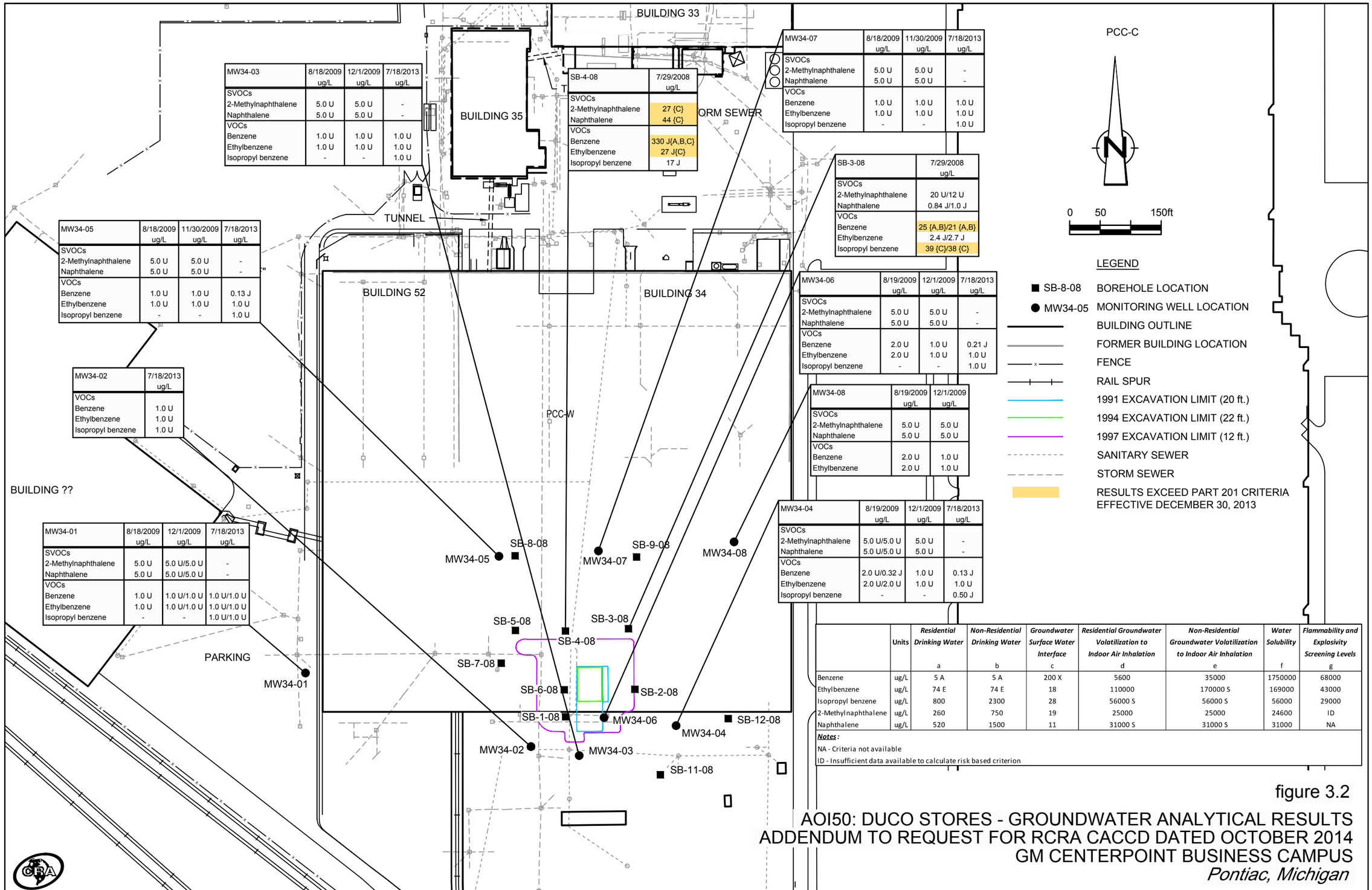
	Units	Statewide Default Background a	Drinking Water Protection b	Nonresidential Drinking Water Protection c	Groundwater Surface Water Interface Protection d	Soil Volatilization to Indoor Air Inhalation e	Nonresidential Soil Volatilization to Indoor Air Inhalation f	Infinite Source Volatile Soil Inhalation g	Nonresidential Infinite Source Volatile Soil Inhalation h	Finite VSIC for 5 Meter Source Thickness i	Nonresidential Finite VSIC for 5 Meter Source Thickness j	Finite VSIC for 2 Meter Source Thickness k	Nonresidential Finite VSIC for 2 Meter Source Thickness l	Particulate Soil Inhalation m	Nonresidential Particulate Soil Inhalation n	Direct Contact o	Nonresidential Direct Contact p	Soil Saturation Concentration Screening Levels q
1,1,1-Trichloroethane	ug/kg	NA	4000	4000	1800	250000	460000	3800000	4500000	12000000	15000000	28000000	31000000	67000000000	29000000000	500000000 C	1000000000 C	460000
1,1-Dichloroethene	ug/kg	NA	140	140	2600	62	330	1100	3700	5300	15000	13000	37000	62000000	78000000	200000	660000 C	570000
Tetrachloroethene	ug/kg	NA	100	100	1200 X	11000	21000	170000	210000	480000	490000	1100000	1100000	2700000000	1200000000	200000 C	930000 C	88000
Trichloroethene	ug/kg	NA	100	100	4000 X	1000	1900	11000	14000	25000	25000	57000	58000	130000000	59000000	110000 DD	660000 C,DD	500000
Vinyl chloride	ug/kg	NA	40	40	260 X	270	2800	4200	29000	30000	170000	73000	420000	350000000	890000000	3800	34000	490000

Notes:
NA - Criteria not available

figure 3.1

AOI50: DUCO STORES SOIL ANALYTICAL RESULTS
ADDENDUM TO REQUEST FOR RCRA CACCD DATED OCTOBER 2014
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

007097-T05(076)GN-DE006 OCT 22/2014



MW34-03	8/18/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

SB-4-08	7/29/2008 ug/L
SVOCs	
2-Methylnaphthalene	27 {C}
Naphthalene	44 {C}
VOCs	
Benzene	330 J{A,B,C}
Ethylbenzene	27 J{C}
Isopropyl benzene	17 J

MW34-07	8/18/2009 ug/L	11/30/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

SB-3-08	7/29/2008 ug/L
SVOCs	
2-Methylnaphthalene	20 U/12 U
Naphthalene	0.84 J/1.0 J
VOCs	
Benzene	25 {A,B}/21 {A,B}
Ethylbenzene	2.4 J/2.7 J
Isopropyl benzene	39 {C}/38 {C}

MW34-05	8/18/2009 ug/L	11/30/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U	0.13 J
Ethylbenzene	1.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

MW34-06	8/19/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	2.0 U	1.0 U	0.21 J
Ethylbenzene	2.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

MW34-02	7/18/2013 ug/L
VOCs	
Benzene	1.0 U
Ethylbenzene	1.0 U
Isopropyl benzene	1.0 U

MW34-08	8/19/2009 ug/L	12/1/2009 ug/L
SVOCs		
2-Methylnaphthalene	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U
VOCs		
Benzene	2.0 U	1.0 U
Ethylbenzene	2.0 U	1.0 U

MW34-04	8/19/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U/5.0 U	5.0 U	-
Naphthalene	5.0 U/5.0 U	5.0 U	-
VOCs			
Benzene	2.0 U/0.32 J	1.0 U	0.13 J
Ethylbenzene	2.0 U/2.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	0.50 J

MW34-01	8/18/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U/5.0 U	-
Naphthalene	5.0 U	5.0 U/5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Ethylbenzene	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Isopropyl benzene	-	-	1.0 U/1.0 U

	Units	*Residential Drinking Water* a	*Non-Residential Drinking Water* b	*Groundwater Surface Water Interface* c	*Residential Groundwater Volatilization to Indoor Air Inhalation* d	*Non-Residential Groundwater Volatilization to Indoor Air Inhalation* e	*Water Solubility* f	*Flammability and Explosivity Screening Levels* g
Benzene	ug/L	5 A	5 A	200 X	5600	35000	1750000	68000
Ethylbenzene	ug/L	74 E	74 E	18	110000	170000 S	169000	43000
Isopropyl benzene	ug/L	800	2300	28	56000 S	56000 S	56000	29000
2-Methylnaphthalene	ug/L	260	750	19	25000	25000	24600	ID
Naphthalene	ug/L	520	1500	11	31000 S	31000 S	31000	NA

Notes:
NA - Criteria not available
ID - Insufficient data available to calculate risk based criterion

figure 3.2

AOI50: DUCO STORES - GROUNDWATER ANALYTICAL RESULTS
ADDENDUM TO REQUEST FOR RCRA CACCD DATED OCTOBER 2014
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

007097-T05(076)GN-DE007 OCT 22/2014

Tables

TABLE 1.1

INVESTIGATION AND CORRECTIVE MEASURES SUMMARY
GM CENTERPOINT BUSINESS CAMPUS, PONTIAC, MICHIGAN

			Investigation			*Corrective Measures*						
SWMU	***AOI***	***Description***	***Pre-RFI***	***IM***	***RFI***	***NFA[1]***	***IC[2]***	***LTGM[3]***	***MPE[4]***	***UST[5]***	***UST[6]***	***Passive LNAPL[7]***
--	16	Former Building 29 Tank Farm	X				X					
6	42	Bldg 53 Tank Area	X			X						
--	44	Bldg 43 Remediation	X			X						
33	45	Former South Retention Pond			X	X						
34	46	North Retention Pond			X		X					
32	49	Former Coal Pile Storage Area		X			X					
--	50	DUCO Stores	X				X				X	
--	52	Building 35 Tank Farm	X				X			X		
--	53	Building 33 LNAPL	X				X	X	X			X
--	53A	UST Confirmed Release C-0014-12					X				X	
31	54	Former Surface Impoundment			X		X					
29	66	Wastewater Treatment Plant			X		X					
--	69	Container Storage Area (Wastewater Treatment Plant)	X				X					
--	71	Burn Pile	X				X	X				X
3	74	Container Storage Area (Pontiac Assembly Center)			X		X					
2	75	Former East Tank Farm	X				X					
30	79	Former J-Lot Fill Area		X			X					
--	82	Former Paint Mix Room Retention Tank	X				X					
--	83	Dock 65	X				X					
--	84	Former Tank Farm Area	X				X					

Notes:

1 No Further Action (i.e., no need for active remediation, engineering controls, or institutional controls to restrict land or resource use)

2 Institutional Controls (to restrict land use to industrial/commercial uses and resource use restriction to prevent shallow groundwater in an unconfined aquifer from being used for drinking water, require a vapor intrusion investigation and/or vapor barrier/mitigation system be conducted and/or installed prior to building occupancy or new construction of a structure at AOI 50, AOI 52, and AOI 53)

3 Long-Term Groundwater Monitoring (including LNAPL monitoring at AOI #53)

4 Multi-Phase Extraction (recovery of LNAPL)

5 UST closure under Michigan Act 451 Part 213 rules (under MDEQ control)

6 UST closure under RCRA Corrective Action process (under USEPA control)

7 Passive LNAPL recovery using absorbents

TABLE 3.1

AOI 50 SOIL ANALYTICAL RESULTS
CORRECTIVE ACTION COMPLETE WITH CONTROLS REQUEST
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN

Sample Location:		*MDEQ Generic Cleanup Criteria: Residential and Nonresidential* [(1)]																
Sample Depth:		*Statewide Default Background*	*Drinking Water Protection*	*Nonresidential Drinking Water Protection*	*Groundwater Surface Water Interface Protection*	*Soil Volatilization to Indoor Air Inhalation*	*Nonresidential Soil Volatilization to Indoor Air Inhalation*	*Infinite Source Volatile Soil Inhalation*	*Nonresidential Infinite Source Volatile Soil Inhalation*	*Finite VSIC for 5 Meter Source Thickness*	*Nonresidential Finite VSIC for 5 Meter Source Thickness*	*Finite VSIC for 2 Meter Source Thickness*	*Nonresidential Finite VSIC for 2 Meter Source Thickness*	*Particulate Soil Inhalation*	*Nonresidential Particulate Soil Inhalation*	*Direct Contact*	*Nonresidential Direct Contact*	*Soil Saturation Concentration Screening Levels*
Sample Date:																		
Sample Type:																		
Parameters	*Units*	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	*k*	*l*	*m*	*n*	*o*	*p*	*q*
VOCs																		
1,1,1-Trichloroethane	ug/kg	NA	4000	4000	1800	250000	460000	3800000	4500000	12000000	15000000	28000000	31000000	67000000000	29000000000	500000000 C	1000000000 C	460000
1,1-Dichloroethane	ug/kg	NA	18000	50000	15000	230000	430000	2100000	2500000	5900000	6000000	14000000	14000000	33000000000	15000000000	27000000 C	87000000 C	890000
1,1-Dichloroethene	ug/kg	NA	140	140	2600	62	330	1100	3700	5300	15000	13000	37000	62000000	78000000	200000	660000 C	570000
1,2,4-Trimethylbenzene	ug/kg	NA	2100	2100	570	4300000 C	8000000 C	21000000	25000000	500000000	600000000	500000000	600000000	82000000000	36000000000	32000000 C	100000000 C	110000
1,3,5-Trimethylbenzene	ug/kg	NA	1800	1800	1100	2600000 C	4800000 C	16000000	19000000	380000000	460000000	380000000	460000000	82000000000	36000000000	32000000 C	100000000 C	94000
2-Methylnaphthalene	ug/kg	NA	57000	170000	4200	2700000	4900000	1500000	1800000	1500000	1800000	1500000	1800000	670000000	290000000	8100000	26000000	NA
Acetone	ug/kg	NA	15000	42000	34000	290000000 C	540000000 C	130000000	160000000	130000000	160000000	190000000	200000000	390000000000	170000000000	23000000	73000000	110000000
Benzene	ug/kg	NA	100	100	4000 X	1600	8400	13000	45000	34000	99000	79000	230000	380000000	470000000	180000	840000 C	400000
Carbon disulfide	ug/kg	NA	16000	46000	ID	76000	140000	1300000	1600000	7900000	8000000	19000000	19000000	47000000000	21000000000	7200000 C,DD	43000000 C,DD	280000
cis-1,2-Dichloroethene	ug/kg	NA	1400	1400	12000	22000	41000	180000	210000	420000	430000	990000	1000000	2300000000	1000000000	2500000 C	8000000 C	640000
Cyclohexane	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/kg	NA	1500	1500	360	87000	460000 C	720000	2400000	1000000	3100000	2200000	6500000	10000000000	13000000000	22000000 C	71000000 C	140000
Isopropyl benzene	ug/kg	NA	91000	260000	3200	400000 C	730000 C	1700000	2000000	1700000	2000000	2800000	3000000	5800000000	2600000000	25000000 C	80000000 C	390000
Methyl acetate	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	ug/kg	NA	800	800	140000 X	9900000 C	18000000 C	25000000	30000000	39000000	41000000	87000000	89000000	200000000000	88000000000	1500000	7100000 C	5900000
Naphthalene	ug/kg	NA	35000	100000	730	250000	470000	300000	350000	300000	350000	300000	350000	200000000	88000000	16000000	52000000	NA
Tetrachloroethene	ug/kg	NA	100	100	1200 X	11000	21000	170000	210000	480000	490000	1100000	1100000	2700000000	1200000000	200000 C	930000 C	88000
Toluene	ug/kg	NA	16000	16000	5400	330000 C	610000 C	2800000	3300000	5100000	36000000	12000000	36000000	27000000000	12000000000	50000000 C	160000000 C	250000
Trichloroethene	ug/kg	NA	100	100	4000 X	1000	1900	11000	14000	25000	25000	57000	58000	130000000	59000000	110000 DD	660000 C,DD	500000
Vinyl chloride	ug/kg	NA	40	40	260 X	270	2800	4200	29000	30000	170000	73000	420000	350000000	890000000	3800	34000	490000
Xylenes (total)	ug/kg	NA	5600	5600	820	6300000 C	12000000 C	46000000	54000000	61000000	65000000	130000000	130000000	290000000000	130000000000	410000000 C,D	1000000000 C,D	150000
SVOCs																		
2-Methylnaphthalene	ug/kg	NA	57000	170000	4200	2700000	4900000	1500000	1800000	1500000	1800000	1500000	1800000	670000000	290000000	8100000	26000000	NA
Acenaphthene	ug/kg	NA	300000	880000	8700	190000000	350000000	81000000	97000000	81000000	97000000	81000000	97000000	14000000000	6200000000	41000000	130000000	NA
Naphthalene	ug/kg	NA	35000	100000	730	250000	470000	300000	350000	300000	350000	300000	350000	200000000	88000000	16000000	52000000	NA
Phenanthrene	ug/kg	NA	56000	160000	2100	2800000	5100000	160000	190000	160000	190000	160000	190000	6700000	2900000	1600000	5200000	NA
Metals																		
Aluminum	ug/kg	6900000	1000	1000	NA	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID	50000000 DD	370000000 DD	NA
Antimony	ug/kg	NA	4300	4300	94000 X	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000000	5900000	180000	670000	NA
Arsenic	ug/kg	5800	4600	4600	4600	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	720000	910000	7600	37000	NA
Barium	ug/kg	75000	1300000	1300000	440000 G	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	330000000	150000000	37000000	130000000	NA
Beryllium	ug/kg	NA	51000	51000	85000 G	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1300000	590000	410000	1600000	NA
Cadmium	ug/kg	1200	6000	6000	3000 G,X	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1700000	2200000	550000	2100000	NA
Chromium	ug/kg	18000	1000000000 D	1000000000 D	2900000000 G,X	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	330000000	150000000	790000000	1000000000 D	NA
Cobalt	ug/kg	6800	800	2000	2000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000000	5900000	2600000	9000000	NA
Copper	ug/kg	32000	5800000	5800000	75000G	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	130000000	59000000	20000000	73000000	NA
Iron	ug/kg	12000000	6000	6000	NA	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID	160000000	580000000	NA
Lead	ug/kg	21000	700000	700000	2.5 G, X	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	100000000	44000000	400000	900000 DD	NA
Manganese	ug/kg	440000	1000	1000	26000 G, X	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	3300000	1500000	25000000	90000000	NA
Nickel	ug/kg	20000	100000	100000	76000 G	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000000	16000000	40000000	150000000	NA
Selenium	ug/kg	410	4000	4000	400	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	130000000	59000000	2600000	9600000	NA
Thallium	ug/kg	NA	2300	2300	4200 X	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000000	5900000	35000	130000	NA
Vanadium	ug/kg	NA	72000	990000	430000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID	750000 DD	5500000 DD	NA
Zinc	ug/kg	47000	2400000	5000000	170000 G	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID	170000000	630000000	NA

Notes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
NA - Criteria not available or not applicable
\- Not analyzed
[ ] - Indicates concentration exceeded Part 201 Cleanup Criteria
[(1)] MDEQ Generic soil cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201 Cleanup Criteria)
If results are below select background level, all other citeria are not applicable

TABLE 3.1

AOI 50 SOIL ANALYTICAL RESULTS
CORRECTIVE ACTION COMPLETE WITH CONTROLS REQUEST
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN

Sample Location:		*MW34-04*	*MW34-04*	*SB-1-08*	*SB-1-12*	*SB-2-08*	*SB-2-12*	*SB-3-08*	*SB-3-08*	*SB-4-08*	*SB-4-08*	*SB-5-08*	*SB-6-08*	*SB-7-08*	*SB-16-12*	*SB-16-12*	*SB-17-12*	*SB-18-12*	*SB-18-12*	*SB-19-12*	*SB-21-12*	*SB-21-12*	*SB-22-12*	*SB-22-12*
Sample Depth:		*0-2 ft bgs*	*6-8 ft bgs*	*5-7 ft bgs*	*10-12 ft BGS*	*7.5-9 ft bgs*	*4-6 ft BGS*	*10-12 ft bgs*	*8-10 ft bgs*	*10-12 ft bgs*	*8-10 ft bgs*	*15-16 ft bgs*	*7-8 ft bgs*	*10.5-12 ft bgs*	*2-4 ft BGS*	*6-8 ft BGS*	*10-12 ft BGS*	*10-12 ft BGS*	*10-12 ft BGS*	*9.5-11.5 ft BGS*	*10-12 ft BGS*	*4.5-6.5 ft BGS*	*10-12 ft BGS*	*5.5-7.5 ft BGS*
Sample Date:		*11/20/2007*	*11/20/2007*	*07/28/2008*	*07/31/2012*	*07/28/2008*	*07/31/2012*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*
Sample Type:																								
Parameters	***Units***																							
VOCs																								
1,1,1-Trichloroethane	ug/kg	46 U	48 U	4.8 U	25000[bcd]	5.5 U	1800	5.2 U	5.1 U	5.2 U	5.8 U	5.6 U	2.2 J	17000 J[bcd]	86	880	81	36 J	43	500	45 U	43	45 U	44 U
1,1-Dichloroethane	ug/kg	46 U	48 U	4.8 U	11000	5.5 U	43 U	5.2 U	5.1 U	5.2 U	5.8 U	0.47 J	5.4 U	470	36 J	140	47 U	40 U	40 U	46 U	45 U	43 U	45 U	44 U
1,1-Dichloroethene	ug/kg	46 U	48 U	4.8 U	440 U	5.5 U	43 U	5.2 U	5.1 U	5.2 U	5.8 U	5.6 U	5.4 U	2900[bcdefg]	43 U	280[bce]	47 U	40 U	40 U	46 U	45 U	43 U	45 U	44 U
1,2,4-Trimethylbenzene	ug/kg	36 J	80 J	4.8 U	180 J	5.5 U	87 U	5.2 UJ	5.1 U	5.2 UJ	5.8 U	5.6 U	5.4 U	310 U	77 J	18 J	95 U	81 U	80 U	93 U	18 J	86 U	71 J	87 U
1,3,5-Trimethylbenzene	ug/kg	91 U	60 J	4.8 U	870 U	5.5 U	87 U	5.2 UJ	5.1 U	5.2 UJ	5.8 U	5.6 U	5.4 U	310 U	85 U	89 U	95 U	81 U	80 U	93 U	90 U	86 U	21 J	87 U
2-Methylnaphthalene	ug/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	23 J	33 J	300 U	250 U	94 J	290 U	280 U	270 U	83 J	270 U
Acetone	ug/kg	680 U	710 U	19 U	6600 U	22 U	650 U	21 U	20 U	21 U	23 U	7.4 J	22 U	2300 U	640 U	670 U	710 U	610 U	600 U	690 U	680 U	640 U	680 U	650 U
Benzene	ug/kg	46 U	14 J	4.8 U	440 U	5.5 U	43 U	0.29 J	5.1 U	5.2 U	5.8 U	5.6 U	5.4 U	150 U	43 U	44 U	47 U	40 U	40 U	46 U	45 U	43 U	45 U	44 U
Carbon disulfide	ug/kg	230 U	240 U	4.8 U	2200 U	5.5 U	220 U	5.2 U	5.1 U	5.2 U	5.8 U	0.62 J	5.4 U	770 U	210 U	220 U	240 U	200 U	200 U	230 U	230 U	210 U	230 U	220 U
cis-1,2-Dichloroethene	ug/kg	46 U	48 U	4.8 U	440 U	5.5 U	23 J	5.2 U	5.1 U	5.2 U	5.8 U	5.6 U	5.4 U	79 J	43 U	44 U	47 U	40 U	40 U	46 U	45 U	43 U	45 U	44 U
Cyclohexane	ug/kg	1100 UJ	930 J	9.6 U	10000 U	11 U	1000 U	10 U	10 U	10 U	12 U	11 U	11 U	3700 U	1000 U	1100 U	1100 U	970 U	960 U	1100 U	1100 U	1000 U	1100 U	1000 U
Ethylbenzene	ug/kg	46 U	18 J	4.8 U	440 U	5.5 U	43 U	5.2 U	5.1 U	5.2 UJ	5.8 U	5.6 U	5.4 U	150 U	10 J	44 U	47 U	40 U	40 U	46 U	45 U	43 U	45 U	44 U
Isopropyl benzene	ug/kg	230 U	830	4.8 U	2200 U	5.5 U	220 U	5.2 U	5.1 U	5.2 U	5.8 U	5.6 U	5.4 U	770 U	23 J	220 U	240 U	200 U	200 U	230 U	230 U	210 U	230 U	220 U
Methyl acetate	ug/kg	100 J	1100 U	9.6 U	10000 U	11 U	1000 U	10 U	10 U	10 U	12 U	11 U	11 U	3700 U	1000 U	170 J	1100 U	970 U	960 U	1100 U	1100 U	1000 U	1100 U	1000 U
Methyl cyclohexane	ug/kg	1100 UJ	910 J	9.6 U	350 J	11 U	1000 U	10 U	10 U	10 U	12 U	11 U	11 U	3700 U	17 J	13 J	1100 U	970 U	960 U	1100 U	85 J	1000 U	1100 U	1000 U
Methyl tert butyl ether (MTBE)	ug/kg	230 U	240 U	19 U	2200 U	22 U	220 U	21 U	20 U	21 U	23 U	22 U	22 U	770 U	210 U	220 U	240 U	200 U	200 U	230 U	230 U	210 U	230 U	220 U
Naphthalene	ug/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	29 J	33 J	300 U	250 U	42 J	290 U	280 U	270 U	11 J	270 U
Tetrachloroethene	ug/kg	46 U	48 U	4.8 U	440 U	5.5 U	1100[bc]	5.2 U	5.1 U	5.2 UJ	5.8 U	5.6 U	5.4 U	150 U	43 U	23 J	47 U	40 U	40 U	35 J	45 U	950[bc]	45 U	44 U
Toluene	ug/kg	91 U	95 U	0.50 J	870 U	0.61 J	87 U	0.36 J	5.1 U	5.2 UJ	5.8 U	5.6 U	5.4 U	310 U	85 U	25 J	95 U	81 U	80 U	93 U	90 U	86 U	91 U	87 U
Trichloroethene	ug/kg	46 U	48 U	4.8 U	4600[bcdef]	5.5 U	2700[bcef]	5.2 U	5.1 U	5.2 U	5.8 U	5.6 U	5.4 U	3300[bcef]	71	190[bc]	1000[bc]	40 U	40 U	420[bc]	45 U	130[bc]	45 U	44 U
Vinyl chloride	ug/kg	36 U	38 U	4.8 U	350 U	5.5 U	35 U	5.2 U	5.1 U	5.2 U	5.8 U	1.8 J	5.4 U	120 U	34 U	36 U	38 U	32 U	32 U	37 U	36 U	34 U	120[bc]	35 U
Xylenes (total)	ug/kg	140 U	130 J	9.6 U	130 J	11 U	130 U	10 U	10 U	10 UJ	12 U	11 U	11 U	460 U	59 J	53 J	140 U	120 U	120 U	140 U	140 U	130 U	140 U	130 U
SVOCs																								
2-Methylnaphthalene	ug/kg	300 U	6300 U	280 U	--	290 UJ	--	270 U	280 U	300 U	310 U	300 U	290 U	290 U	--	--	--	--	--	--	--	--	--	--
Acenaphthene	ug/kg	300 U	6300 U	280 U	--	290 UJ	--	270 U	280 U	300 U	310 U	300 U	290 U	290 U	--	--	--	--	--	--	--	--	--	--
Naphthalene	ug/kg	300 U	440 J	280 U	--	290 UJ	--	270 U	280 U	300 U	310 U	300 U	290 U	290 U	--	--	--	--	--	--	--	--	--	--
Phenanthrene	ug/kg	300 U	6300 U	280 U	--	290 UJ	--	7.3 J	280 U	300 U	310 U	300 U	290 U	290 U	--	--	--	--	--	--	--	--	--	--
Metals																								
Aluminum	ug/kg	--	--	1730000	--	2330000	--	2360000	2110000	2920000	4670000	4960000	2220000	1390000	--	--	--	--	--	--	--	--	--	--
Antimony	ug/kg	--	--	170 UJ	--	180 UJ	--	170 UJ	170 UJ	170 J	210 J	180 UJ	180 UJ	280 J	--	--	--	--	--	--	--	--	--	--
Arsenic	ug/kg	--	--	3700	--	3700	--	5400	5000	5700	5500	7100[abcd]	4000	5900[abcd]	--	--	--	--	--	--	--	--	--	--
Barium	ug/kg	--	--	7500	--	8800	--	10100	8300	13000	27800	31200	10700	7500	--	--	--	--	--	--	--	--	--	--
Beryllium	ug/kg	--	--	170 U	--	180 U	--	170 U	170 U	180 U	190 U	120 J	180 U	180 U	--	--	--	--	--	--	--	--	--	--
Cadmium	ug/kg	--	--	86 U	--	140	--	190	170	590	190	210	89 U	530	--	--	--	--	--	--	--	--	--	--
Chromium	ug/kg	--	--	4300	--	6300	--	5700	5400	7700	9700	10600	4600	5400	--	--	--	--	--	--	--	--	--	--
Cobalt	ug/kg	--	--	2100	--	3400	--	2900	2900	4900	5200	6500	2400	2700	--	--	--	--	--	--	--	--	--	--
Copper	ug/kg	--	--	4500	--	7600	--	12400	10800	11800	11800	15100	4900	11300	--	--	--	--	--	--	--	--	--	--
Iron	ug/kg	--	--	4980000	--	6930000	--	7130000	6030000	7180000	11300000	13300000[abc]	5860000	5600000	--	--	--	--	--	--	--	--	--	--
Lead	ug/kg	7700	10400	2900	--	5900	--	5300	5200	4600	7400	6600	3100	4500	--	--	--	--	--	--	--	--	--	--
Manganese	ug/kg	--	--	123000	--	214000	--	157000	197000	199000	314000	286000	155000	122000	--	--	--	--	--	--	--	--	--	--
Nickel	ug/kg	--	--	4600	--	10000	--	9500	8800	16300	13700	18500	5400	8000	--	--	--	--	--	--	--	--	--	--
Selenium	ug/kg	--	--	110 J	--	190	--	240	250	1800[ad]	400	400	120 J	460[ad]	--	--	--	--	--	--	--	--	--	--
Thallium	ug/kg	--	--	90 U	--	210 U	--	160 U	250	380	250	400	89 U	320	--	--	--	--	--	--	--	--	--	--
Vanadium	ug/kg	--	--	7100	--	12300	--	10300	9700	11300	15500	15200	8100	6800	--	--	--	--	--	--	--	--	--	--
Zinc	ug/kg	--	--	15100	--	32000	--	30700	28000	34600	32000	33600	15300	46000	--	--	--	--	--	--	--	--	--	--

Notes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
NA - Criteria not available or not applicable
\- Not analyzed
[ ] - Indicates concentration exceeded Part 201 Cleanup Criteria
(1) MDEQ Generic soil cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201 Cleanup Criteria)
If results are below select background level, all other citeria are not applicable

TABLE 3.2

AOI 50 GROUNDWATER ANALYTICAL RESULTS
CORRECTIVE ACTION COMPLETE WITH CONTROLS REQUEST
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN

Sample Location:		*MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)*							*MW34-01*	*MW34-01*	*MW34-01*	*MW34-01*	*MW34-01*	*MW34-01*	*MW34-02*	*MW34-02*	*MW34-03*	*MW34-03*	*MW34-03*	*MW34-03*	*MW34-04*	*MW34-04*	*MW34-04*	*MW34-04*
Sample Date:		*Residential*	*Non-Residential*	*Groundwater*	*Residential Groundwater*	*Non-Residential Groundwater*	*Water*	*Flammability and*	*11/09/2007*	*08/18/2009*	*12/01/2009*	*12/01/2009*	*07/18/2013*	*07/18/2013*	*11/08/2007*	*07/18/2013*	*11/08/2007*	*08/18/2009*	*12/01/2009*	*07/18/2013*	*12/13/2007*	*12/13/2007*	*08/19/2009*	*08/19/2009*
Sample Type:		*Drinking Water*	*Drinking Water*	*Surface Water*	*Volatilization to*	*Volatilization to*	*Solubility*	*Explosivity*				*Duplicate*		*Duplicate*								*Duplicate*		*Duplicate*
				Interface	*Indoor Air Inhalation*	*Indoor Air Inhalation*		*Screening Levels*																
Parameters	*Units*	*a*	*b*	*c*	*d*	*e*	*f*	*g*																
VOCs																								
1,1,1-Trichloroethane	ug/L	200 A	200 A	89	660000	1300000 S	1330000	ID	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--
1,1-Dichloroethane	ug/L	880	2500	740	1000000	2300000	5060000	380000	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.39 J	--	--	1.0 U	1.0 U	1.0 U	--	--
1,1-Dichloroethene	ug/L	7 A	7 A	130	200	1300	2250000	97000	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	17	56000 S	56000 S	55890	56000 S	1.0 U	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	45	61000 S	61000 S	61150	ID	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Acetone	ug/L	730	2100	1700	1000000000 D,S	1000000000 D,S	1000000000	15000000	25 U	--	--	--	10 U	10 U	25 U	10 U	25 U	--	--	10 U	1.3 J	25 U	--	--
Benzene	ug/L	5 A	5 A	200 X	5600	35000	1750000	68000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.96 J	0.98 J	2.0 U	0.32 J
Carbon disulfide	ug/L	800	2300	ID	250000	550000	1190000	13000	5.0 U	--	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	--	5.0 U	5.0 U	5.0 U	--	--
cis-1,2-Dichloroethene	ug/L	70 A	70 A	620	93000	210000	3500000	530000	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	0.33 J	0.30 J	--	--
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	3.9	3.8	--	--
Ethylbenzene	ug/L	74 E	74 E	18	110000	170000 S	169000	43000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Isopropyl benzene	ug/L	800	2300	28	56000 S	56000 S	56000	29000	5.0 U	--	--	--	1.0 U	1.0 U	5.0 U	1.0 U	5.0 U	--	--	1.0 U	4.6 J	4.6 J	--	--
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	10 U	--	--	--	10 U	10 U	10 U	10 U	10 U	--	--	10 U	10 U	10 U	--	--
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	2.6	2.6	--	--
Methyl tert butyl ether (MTBE)	ug/L	40 E	40 E	7100 X	47000000 S	47000000 S	46800000	ID	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U	0.21 J	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Tetrachloroethene	ug/L	5 A	5 A	60 X	25000	170000	200000	ID	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--
Toluene	ug/L	790 E	790 E	270	530000 S	530000 S	526000	61000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5 A	5 A	200 X	2200	4900	1100000	ID	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--
Vinyl chloride	ug/L	2 A	2 A	13 X	1100	13000	2760000	33000	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--
Xylenes (total)	ug/L	280 E	280 E	41	190000 S	190000 S	186000	70000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U
SVOCs																								
2-Methylnaphthalene	ug/L	260	750	19	25000	25000	24600	ID	5.0 U	5.0 U	5.0 U	5.0 U	--	--	5.0 U	--	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	ug/L	1300	3800	38	4200 S	4200 S	4240	ID	5.0 U	5.0 U	5.0 U	5.0 U	--	--	5.0 U	--	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	520	1500	11	31000 S	31000 S	31000	NA	5.0 U	5.0 U	5.0 U	5.0 U	--	--	5.0 U	--	5.0 U	5.0 U	5.0 U	--	5.0 U	0.24 J	5.0 U	5.0 U
Phenanthrene	ug/L	52	150	2 M	1000 S	1000 S	1000	ID	2.0 U	2.0 U	2.0 U	2.0 U	--	--	2.0 U	--	2.0 U	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Metals																								
Lead	ug/L	4 L	4 L	29 G,X	NLV	NLV	NA	ID	3.0 U	3.0 U	3.0 U	3.0 U	--	--	3.0 U	--	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
NA - Criteria not available or not applicable
\- Not analyzed
[ ] - Indicates concentration exceeded Part 201 Cleanup Criteria
(1) MDEQ Generic groundwater cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201
Cleanup Criteria)

TABLE 3.2

AOI 50 GROUNDWATER ANALYTICAL RESULTS
CORRECTIVE ACTION COMPLETE WITH CONTROLS REQUEST
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN

Sample Location:		*MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)*							*MW34-04*	*MW34-04*	*MW34-05*	*MW34-05*	*MW34-05*	*MW34-07*	*MW34-07*	*MW34-07*	*MW34-08*	*MW34-08*	*MW34-06*	*MW34-06*	*MW34-06*	*SB-3-08*	*SB-3-08*	*SB-4-08*
Sample Date:		*Residential Drinking Water*	*Non-Residential Drinking Water*	*Groundwater Surface Water Interface*	*Residential Groundwater Volatilization to Indoor Air Inhalation*	*Non-Residential Groundwater Volatilization to Indoor Air Inhalation*	*Water Solubility*	*Flammability and Explosivity Screening Levels*	*12/01/2009*	*07/18/2013*	*08/18/2009*	*11/30/2009*	*07/18/2013*	*08/18/2009*	*11/30/2009*	*07/18/2013*	*08/19/2009*	*12/01/2009*	*08/19/2009*	*12/01/2009*	*07/18/2013*	*07/29/2008*	*07/29/2008*	*07/29/2008*
Sample Type:																							*Duplicate*	
Parameters	*Units*	*a*	*b*	*c*	*d*	*e*	*f*	*g*																
VOCs																								
1,1,1-Trichloroethane	ug/L	200 A	200 A	89	660000	1300000 S	1330000	ID	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	1.0 UJ	1.0 UJ	17 UJ
1,1-Dichloroethane	ug/L	880	2500	740	1000000	2300000	5060000	380000	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	1.0 U	1.0 U	17 UJ
1,1-Dichloroethene	ug/L	7 A	7 A	130	200	1300	2250000	97000	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	1.0 U	1.0 U	17 U
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	17	56000 S	56000 S	55890	56000 S	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.5	0.79 J	17 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	45	61000 S	61000 S	61150	ID	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.22 J	17 U
Acetone	ug/L	730	2100	1700	1000000000 D,S	1000000000 D,S	1000000000	15000000	--	10 U	--	--	10 U	--	--	10 U	--	--	--	--	10 U	25 U	25 U	89 J
Benzene	ug/L	5 A	5 A	200 X	5600	35000	1750000	68000	1.0 U	0.13 J	1.0 U	1.0 U	0.13 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	0.21 J	21[ab]	25[ab]	330 J[abc]
Carbon disulfide	ug/L	800	2300	ID	250000	550000	1190000	13000	--	5.0 U	--	--	5.0 U	--	--	5.0 U	--	--	--	--	5.0 U	5.0 U	5.0 U	83 U
cis-1,2-Dichloroethene	ug/L	70 A	70 A	620	93000	210000	3500000	530000	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.3	1.0 UJ	1.0 UJ	17 UJ
Cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	--	0.66 J	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	26	27	110
Ethylbenzene	ug/L	74 E	74 E	18	110000	170000 S	169000	43000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.4 J	2.7 J	27 J[c]
Isopropyl benzene	ug/L	800	2300	28	56000 S	56000 S	56000	29000	--	0.50 J	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	38[c]	39[c]	17 J
Methyl acetate	ug/L	NA	NA	NA	NA	NA	NA	NA	--	10 U	--	--	10 U	--	--	10 U	--	--	--	--	10 U	10 U	10 U	170 U
Methyl cyclohexane	ug/L	NA	NA	NA	NA	NA	NA	NA	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	7.6	6.0	67
Methyl tert butyl ether (MTBE)	ug/L	40 E	40 E	7100 X	47000000 S	47000000 S	46800000	ID	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	10 U	5.0 U	10 U	5.0 U	1.0 U	5.0 U	5.0 U	83 UJ
Tetrachloroethene	ug/L	5 A	5 A	60 X	25000	170000	200000	ID	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	1.0 UJ	1.0 UJ	17 UJ
Toluene	ug/L	790 E	790 E	270	530000 S	530000 S	526000	61000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	0.88 J	1.1	7.4 J
Trichloroethene	ug/L	5 A	5 A	200 X	2200	4900	1100000	ID	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	1.0 U	1.0 U	17 U
Vinyl chloride	ug/L	2 A	2 A	13 X	1100	13000	2760000	33000	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--	--	--	1.0 U	1.0 U	1.0 U	17 UJ
Xylenes (total)	ug/L	280 E	280 E	41	190000 S	190000 S	186000	70000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0	2.0	11 J
SVOCs																								
2-Methylnaphthalene	ug/L	260	750	19	25000	25000	24600	ID	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	20 U	12 U	27[c]
Acenaphthene	ug/L	1300	3800	38	4200 S	4200 S	4240	ID	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	20 U	12 U	1.0 J
Naphthalene	ug/L	520	1500	11	31000 S	31000 S	31000	NA	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	1.0 J	0.84 J	44[c]
Phenanthrene	ug/L	52	150	2 M	1000 S	1000 S	1000	ID	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	--	8.0 U	5.0 U	1.8 J
Metals																								
Lead	ug/L	4 L	4 L	29 G,X	NLV	NLV	NA	ID	3.0 U	--	3.0 U	3.0 U	--	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U	--	--	--	--

Footnotes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
NA - Criteria not available or not applicable
\- Not analyzed
- Indicates concentration exceeded Part 201 Cleanup Criteria
(1) MDEQ Generic groundwater cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201 Cleanup Criteria)

TABLE 3.3

AOI 53A SOIL ANALYTICAL RESULTS
CORRECTIVE ACTION COMPLETE WITH CONTROLS REQUEST
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic										
Sample Location:		***Cleanup Criteria (1)***					***SB-11-12***	***SB-11-12***	***SB-12-12***	***SB-13-12***	***SB-14-12***	***SB-15-12***
Sample Depth:		***Residential***	***Non-Residential***	***Groundwater***	***Residential***	***Non-Residential***	***6-8 ft BGS***	***6-8 ft BGS***	***6-8 ft BGS***	***6-8 ft BGS***	***6-8 ft BGS***	***4-6 ft BGS***
Sample ID:		***Drinking Water***	***Drinking Water***	***Surface Water***	***Soil Volatilization to***	***Soil Volatilization to***	***SO-7097-073012-CB-009***	***SO-7097-073012-CB-010***	***SO-7097-073012-CB-007***	***SO-7097-073112-CB-012***	***SO-7097-073112-CB-013***	***SO-7097-073012-CB-008***
Sample Date:		***Protection***	***Protection***	***Interface Protection***	***Indoor Air Inhalation***	***Indoor Air Inhalation***	***07/30/2012***	***07/30/2012***	***07/30/2012***	***07/31/2012***	***07/31/2012***	***07/30/2012***
Sample Type:								***Duplicate***		***Duplicate***		
Parameters	***Units***	***a***	***b***	***c***	***d***	***e***						
VOCs										``		
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	250000	460000	42 U	43 U	41 U	-	-	39 U
1,1,2,2-Tetrachloroethane	ug/kg	170	700	1600 X	4300	23000	42 U	43 U	41 U	-	-	39 U
1,1,2-Trichloroethane	ug/kg	100	100	6600 X	4600	24000	42 U	43 U	41 U	-	-	39 U
1,1-Dichloroethane	ug/kg	18000	50000	15000	230000	430000	42 U	43 U	41 U	-	-	39 U
1,1-Dichloroethene	ug/kg	140	140	2600	62	330	42 U	43 U	41 U	-	-	39 U
1,2,4-Trichlorobenzene	ug/kg	4200	4200	5900 X	9600000 C	18000000 C	210 U	210 U	210 U	-	-	190 U
1,2,4-Trimethylbenzene	ug/kg	2100	2100	570	4300000 C	8000000 C	85 U	85 U	82 U	84 U	85 U	200
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	10 M	10 M	ID	220	1200	210 U	210 U	210 U	-	-	190 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	20 M	20 M	110 X	670	3600	210 U	210 U	210 U	-	-	190 U
1,2-Dichlorobenzene	ug/kg	14000	14000	280	11000000 C	20000000 C	85 U	85 U	82 U	-	-	78 U
1,2-Dichloroethane	ug/kg	100	100	7200 X	2100	11000	42 U	43 U	41 U	-	-	39 U
1,2-Dichloropropane	ug/kg	100	100	4600 X	4000	7400	42 U	43 U	41 U	-	-	39 U
1,3,5-Trimethylbenzene	ug/kg	1800	1800	1100	2600000 C	4800000 C	85 U	85 U	82 U	84 U	85 U	74 J
1,3-Dichlorobenzene	ug/kg	170	480	680	26000	48000	85 U	85 U	82 U	-	-	78 U
1,4-Dichlorobenzene	ug/kg	1700	1700	360	19000	100000	85 U	85 U	82 U	-	-	78 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	260000	760000	44000	54000000 C	99000000 C	630 U	640 U	620 U	-	-	580 U
2-Hexanone	ug/kg	20000	58000	ID	990000	1800000	2100 U	2100 U	2100 U	-	-	1900 U
2-Methylnaphthalene	ug/kg	57000	170000	4200	2700000	4900000	-	-	-	260 U	260 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	36000	100000	ID	37000000 C	69000000 C	2100 U	2100 U	2100 U	-	-	1900 U
Acetone	ug/kg	15000	42000	34000	290000000 C	540000000 C	630 U	640 U	170 J	-	-	580 U
Benzene	ug/kg	100	100	4000 X	1600	8400	42 U	43 U	41 U	42 U	42 U	39 U
Bromodichloromethane	ug/kg	1600 W	1600 W	ID	1200	6400	85 U	85 U	82 U	-	-	78 U
Bromoform	ug/kg	1600 W	1600 W	ID	150000	770000	85 U	85 U	82 U	-	-	78 U
Bromomethane (Methyl bromide)	ug/kg	200	580	700	860	1600	210 U	210 U	210 U	-	-	190 U
Carbon disulfide	ug/kg	16000	46000	ID	76000	140000	210 U	210 U	210 U	-	-	190 U
Carbon tetrachloride	ug/kg	100	100	900 X	190	990	42 U	43 U	41 U	-	-	39 U
Chlorobenzene	ug/kg	2000	2000	500	120000	220000	42 U	43 U	41 U	-	-	39 U
Chloroethane	ug/kg	8600	34000	22000 X	2900000 C	5300000 C	210 U	210 U	210 U	-	-	190 U
Chloroform (Trichloromethane)	ug/kg	1600 W	1600 W	7000	7200	38000	42 U	43 U	41 U	-	-	39 U
Chloromethane (Methyl chloride)	ug/kg	5200	22000	ID	2300	10000	210 U	210 U	210 U	-	-	190 U
cis-1,2-Dichloroethene	ug/kg	1400	1400	12000	22000	41000	42 U	43 U	41 U	-	-	39 U
cis-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	42 U	43 U	41 U	-	-	39 U
Cyclohexane	ug/kg	NA	NA	NA	NA	NA	1000 U	1000 U	990 U	-	-	930 U
Dibromochloromethane	ug/kg	1600 W	1600 W	ID	3900	21000	42 U	43 U	41 U	-	-	39 U
Dichlorodifluoromethane (CFC-12)	ug/kg	95000	270000	ID	900000	1700000	85 U	85 U	82 U	-	-	78 U
Ethylbenzene	ug/kg	1500	1500	360	87000	460000 C	42 U	43 U	41 U	42 U	42 U	19 J
Isopropyl benzene	ug/kg	91000	260000	3200	400000 C	730000 C	210 U	210 U	210 U	-	-	190 U
Methyl acetate	ug/kg	NA	NA	NA	NA	NA	1000 U	1000 U	990 U	-	-	930 U
Methyl cyclohexane	ug/kg	NA	NA	NA	NA	NA	1000 U	1000 U	990 U	-	-	930 U
Methyl tert butyl ether (MTBE)	ug/kg	800	800	140000 X	9900000 C	18000000 C	210 U	210 U	210 U	210 U	210 U	190 U
Methylene chloride	ug/kg	100	100	30000 X	45000	240000	110 Jb[ab]	130 Jb[ab]	94 JB	-	-	110 Jb[ab]
Naphthalene	ug/kg	35000	100000	730	250000	470000	-	-	-	260 U	260 U	-
Styrene	ug/kg	2700	2700	2100 X	250000	1600000 C	42 U	43 U	41 U	-	-	8.8 J
Tetrachloroethene	ug/kg	100	100	1200 X	11000	21000	42 U	43 U	41 U	-	-	39 U
Toluene	ug/kg	16000	16000	5400	330000 C	610000 C	85 U	85 U	82 U	84 U	85 U	18 J
trans-1,2-Dichloroethene	ug/kg	2000	2000	30000 X	23000	43000	42 U	43 U	41 U	-	-	39 U
trans-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	42 U	43 U	41 U	-	-	39 U
Trichloroethene	ug/kg	100	100	4000 X	1000	1900	42 U	43 U	41 U	-	-	39 U
Trichlorofluoromethane (CFC-11)	ug/kg	52000	150000	NA	2800000 C	5100000 C	85 U	85 U	82 U	-	-	78 U
Trifluorotrichloroethane (Freon 113)	ug/kg	9000000 C	9000000 C	1700	5100000 C	9300000 C	210 U	210 U	210 U	-	-	190 U
Vinyl chloride	ug/kg	40	40	260 X	270	2800	34 U	34 U	33 U	-	-	31 U
Xylenes (total)	ug/kg	5600	5600	820	6300000 C	12000000 C	130 U	130 U	120 U	130 U	130 U	78 J

Notes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
NA - Criteria not available or not applicable
\- Not analyzed
\- Indicates concentration exceeded Part 201 Cleanup Criteria

(1) MDEQ Generic soil cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201 Cleanup Criteria)
If results are below select background level, all other citeria are not applicable

TABLE 3.4

AOI 53A GROUNDWATER ANALYTICAL RESULTS
CORRECTIVE ACTION COMPLETE WITH CONTROLS REQUEST
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN

Sample Location:		*Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)*			*SB-14-12*	*SB-14-12*
Sample ID:		*Residential*	*Non-Residential*	*Groundwater*	*GW-7097-080112-CB-023*	*GW-7097-080112-CB-024*
Sample Date:		*Drinking Water*	*Drinking Water*	*Surface Water*	*08/01/2012*	*08/01/2012*
Sample Type:				*Interface*		*Duplicate*
Parameters	*Units*	*a*	*b*	*c*		
VOCs						
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	17	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	45	1.0 U	1.0 U
2-Methylnaphthalene	ug/L	260	750	19	5.0 U	5.0 U
Benzene	ug/L	5 A	5 A	200 X	1.0 U	1.0 U
Ethylbenzene	ug/L	74 E	74 E	18	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	40 E	40 E	7100 X	5.0 U	5.0 U
Naphthalene	ug/L	520	1500	11	5.0 U	5.0 U
Toluene	ug/L	790 E	790 E	270	1.0 U	1.0 U
Xylenes (total)	ug/L	280 E	280 E	41	2.0 U	2.0 U

Notes:

U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
NA - Criteria not available or not applicable
\- Not analyzed
- Indicates concentration exceeded Part 201 Cleanup Criteria

(1) MDEQ Generic groundwater cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201 Cleanup Criteria)

Appendix A

August 3, 2011 U.S. EPA Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 03 2011

REPLY TO THE ATTENTION OF:

MMP Group – Assembly, LLC
c/o Steve Lemberg
Resident Agent
1999 Centerpoint Parkway, Suite 300
Pontiac, Michigan 48341

Dear Mr. Lemberg:

This letter is in response to Mr. Mark Jacobs' request for a comfort letter from the U. S. Environmental Protection Agency regarding Resource Conservation and Recovery Act (RCRA) corrective action obligations for the following four Pontiac,Michigan properties:

Pontiac Assembly (MLC 1196)
Pontiac Centerpoint East (MLC 1307)
Pontiac Centerpoint Central (MLC 1305)
Pontiac Centerpoint West (MLC 1308)

As you know, these properties are parcels of a former General Motors facility, EPA identification number MID 005 356 902, which are currently undergoing a joint Corrective Action Complete with controls (CAC) determination process with EPA. This CAC determination will document the fact that EPA considers the RCRA remediation complete, with the exception of the area identified as Area of Interest 50 (AOI-50), and any associated releases.

EPA's Final Decision indicates that closure of AOI-50 is to take place under Michigan Act 451 Part 213 regulations and include institutional controls. The Michigan Department of Environmental Quality recently submitted a letter to the RACER Trust identifying deficiencies in the October 25, 2010 closure report for AOI-50, a former underground storage tank farm and the surrounding area. From that letter, it appears that additional sampling, analysis, data, or other documentation might be necessary to properly define the nature and extent of contamination and otherwise complete the state underground storage tank closure.

For a CAC determination such as this, after the application is submitted to EPA and found to be approvable, the public is provided 60 days to comment on the proposed CAC determination. The comment period begins on the date the owner/operator publishes the notice in the local newspaper. In addition, a public meeting is held during the public comment period. Comments are to be submitted to the EPA contact identified in the public notice, for EPA's review.

Representatives of the RACER Trust have accomplished the following milestones leading up to the CAC determination:

- Publish Public Notice of Public Meeting in Local Newspaper: June 29, 2011;

Recycled/Recyclable-Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

- Hold Public Meeting: July 14, 2011.

No comments were received at the public meeting.

Based on the above we would expect the following schedule for finalization of the CAC determination:

- End of Public Comment Period: August 27, 2011;
- All Comments Received: September 2, 2011;
- Drafting, the Land and Chemicals Division management review, legal review, and issuance of CAC determination letter, assuming we receive no public comments that alter the determination: October 24, 2011.

After completion of the public comment period EPA will review the public comments for any additional issues that need to be addressed before the determination is finalized, and will either (a) approve the request and issue the CAC determination (b) deny the request; or (c) determine that the CAC determination request should have additional public comment procedures. Although EPA's preliminary analysis of the application is that the corrective action at this property, with the exception of AOI-50 and any associated release, is now complete, EPA will make no final decision until the public process concludes.

Paragraph 69 of the ENVIRONMENTAL RESPONSE TRUST CONSENT DECREE AND SETTLEMENT AGREEMENT (Settlement Agreement) directs that EPA will upon request of a prospective purchaser, use one or more of the following enforcement or liability clarification tools for a property to address the liability concerns of prospective purchasers for existing contamination (provided the purchasers comply with the requirements set forth in Paragraph 73(1)-(5) of the Settlement Agreement:

- Prospective Purchaser Agreements or equivalent agreements under applicable State law;
- Bona Fide Prospective Purchaser Work Agreements or equivalent agreements under applicable State law or
- Comfort/Status Letters or equivalent letter under applicable State practice.

The Settlement Agreement provides EPA, the states, or tribe enforcement discretion to select the appropriate enforcement or liability clarification tool from the options set forth in the three preceding bullet points.

Based on EPA's preliminary determination that corrective action is complete for these four parcels with the exception of AOI-50 and any associated releases, EPA neither plans nor anticipates pursuing any corrective action at these parcels. Please note, however, that the public comment period for the proposed CAC determination has not yet ended, and so additional

corrective actions may be required. In addition, this comfort letter does not preclude EPA from undertaking any action at the facility at a later date if EPA obtains information indicating that such action is necessary to protect human health or the environment.

The Michigan Department of Environmental Quality, which is overseeing cleanup of AOI-50, has not approved that cleanup. If you want more information concerning AOI-50, please contact Richard Berak at (586) 753-3808.

This letter only addresses our intentions under the RCRA Subtitle C program, and not the Comprehensive Environmental Response, Compensation, and Liability Act. This letter does not in any way constrain the State of Michigan with respect to any potential RCRA corrective action, underground storage tank, or other requirements that the State might deem appropriate at the facility. Finally, this letter would not apply to any entity in the future that engaged in the treatment, storage, or disposal of RCRA hazardous waste on this site.

For your additional information, I am enclosing with this letter a copy of the RACER Trust document entitled *Request for Resource Conservation and Recovery Act Corrective Action Complete With Controls Determination, updated June 2011*. This document discusses environmental conditions and investigations at the site, the selected corrective measures, information on institutional controls including a copy of the Declaration of Restrictive Covenant, and copies of EPA's *Statement of Basis* and *Final Decision* with respect to the corrective action at this site.

If you have any questions regarding this letter, or if we can be of further assistance, please do not hesitate to contact me at (312) 886-6945 or Mr. Gary Victorine of my staff at (312) 886-1479.

Sincerely,

Jose G. Cisneros
Chief
RCRA Remediation and Reuse Branch
Land and Chemicals Division

Enclosure

cc: De Montgomery, MDEQ
Grant Trigger, RACER
Mark Jacobs, Dykema – Detroit Office

bcc: Gary Victorine, RRB
Peter Ramanauskas, RRB
Brian Barwick, ORC

Appendix B

USEPA Email Correspondence

From: Peter Ramanauskas
To: Kinney, Tom
Cc: Dave Favero; Project Email Hold; Coram, Michael J.
Subject: RE: Racer PCC West AOI 50 Duco USTs ~COR-007097~
Date: Wednesday, March 14, 2012 10:02:16 AM

Yes, Tom, we did.

Peter

"Kinney, Tom" ---03/13/2012 08:42:46 AM---Good morning Peter, I am following up to see if the EPA & MDEQ officially agreed that EPA would take

From: "Kinney, Tom" <tkinney@craworld.com>
To: Peter Ramanauskas/R5/USEPA/US@EPA
Cc: "Coram, Michael J." <mcoram@craworld.com>, "Dave Favero" <dfavero@racertrust.org>, "Project Email Hold" <filing@craworld.com>
Date: 03/13/2012 08:42 AM
Subject: RE: Racer PCC West AOI 50 Duco USTs ~COR-007097~

Good morning Peter,

I am following up to see if the EPA & MDEQ officially agreed that EPA would take the lead on the DUCO Stores USTs associated w/AOI 50 at PCC West - release numbers C-0235-90, C-0776-90, C-1831-91.

Thanks,
Tom

-----Original Message-----
From: Kinney, Tom [mailto:tkinney@craworld.com]
Sent: Friday, February 10, 2012 5:59 PM
To: Peter Ramanauskas
Cc: Dave Favero; Coram, Michael J.; Grant Trigger; Project Email Hold
Subject: Racer PCC West AOI 50 Duco USTs ~COR-007097~

Good afternoon Peter,

Please find attached a summary of information associated with the DUCO Stores USTs associated w/AOI 50 at PCC West.

Did you get any feedback from the MDEQ regarding your request to have the EPA take the lead associated w/these UST releases at AOI 50 ?

Please let me know if you have questions regarding this information.

Have a good weekend.

Thanks,

_____

Thomas M. Kinney, CPG
Conestoga-Rovers & Associates (CRA)
14496 N Sheldon Rd.
Suite 200
Plymouth, MI 48170
Front Desk: 734.453.5123
Direct:
Mobile: [redacted] Non
Fax: 734[redacted]

Email: tkinney@CRAworld.com
www.CRAworld.com
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Perform every task the safe way, the right way, every time!

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Appendix C

Restrictive Covenant

RECEIVED
OAKLAND COUNTY
REGISTER OF DEEDS

2014 SEP -4 PM 1:44

169831
LIBER 47370 PAGE 378
$58.00 MISC RECORDING
$4.00 REMONUMENTATION
09/04/2014 02:10:57 P.M. RECEIPT# 86019
PAID RECORDED - OAKLAND COUNTY
LISA BROWN, CLERK/REGISTER OF DEEDS

DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-WHMD-111-14-006
Facility MID Number: MID005356902

This Declaration of Restrictive Covenant (Restrictive Covenant) is made to protect public health, safety, welfare, and the environment pursuant to the provisions of Part 111, Hazardous Waste Management, Michigan Compiled Laws (MCL) 324.11101 *et seq.* (Part 111) and the applicable Sections of Part 201, Environmental Remediation, MCL 324.20101 *et seq.* (Part 201) of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.101 *et seq.* and the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §§ 6901 *et seq.*

17P
R

This Restrictive Covenant is made on 21st day of August, 2014 by RACER Properties LLC, the Grantor, an entity wholly owned by the Revitalizing Auto Communities Environmental Response Trust (Trust) and the current fee title holder of the Property, formerly owned by General Motors Corporation (GM Corp.), such Property legally described in Exhibit 1 and depicted in Exhibit 2, the address of which is 660 South Boulevard East, Pontiac, Michigan, 48341, Tax Identification Numbers 19-03-101-003 and 19-04-226-020, for the benefit of the Grantee, the State of Michigan, Department of Environment Quality (MDEQ), 525 West Allegan Street, P.O. Box 30473, Lansing, Michigan 48909-7926.

This Restrictive Covenant has been made to prohibit or restrict activities that could result in unacceptable exposure to environmental contamination present at the Property. There is an existing Restrictive Covenant on the Property dated March 30, 2007 and filed with the Oakland County Register of Deeds on April 13, 2007 (2007 Restrictive Covenant), which includes certain land and resource use restrictions, soil management provisions, monitoring well coordination, and prohibition of installation of wells to extract groundwater for potable use.

The land and resource restrictions contained in the present Restrictive Covenant are based upon information available to MDEQ and the United States Environmental Protection Agency (USEPA) at the time this Restrictive Covenant was recorded. Failure of the corrective measures to achieve and maintain the cleanup criteria, exposure controls, and requirements specified in the Corrective Action Complete with Controls Report for the Property (CACC Report – to be filed after recording of this Restrictive Covenant); future changes in the environmental condition of the Property or changes in the cleanup criteria developed under Parts 111 and 201 of NREPA; the discovery of

OK - LG

environmental conditions at the Property that were not accounted for in the CACC Report; or use of the Property in a manner inconsistent with the restrictions described herein or in the 2007 Restrictive Covenant – each may result in this Restrictive Covenant not being protective of public health, safety, and welfare, and the environment. Additional restrictions may become necessary.

Summary of Corrective Measures

In 1998, GM Corp. began RCRA Corrective Action activities at its Pontiac Centerpoint Campus (PCC), USEPA Site Identification No. MID005356902, under an Administrative Order on Consent with USEPA. The Property (which is now owned entirely by the Grantor) is a portion of PCC and generally consists of Area of Interest (AOI) #53 (Building 33), AOI #52 (Dyno Tank Farm), AOI #50 (Duco Stores), and AOI #49 (Former Coal Pile Storage Area). As documented in the August 3, 2006, USEPA Response to Comments and Final Decision, the final corrective measures at the Property include:

- Institutional controls to prohibit use of shallow groundwater for potable use and to restrict land use for any purpose other than commercial/industrial (i.e. non-residential)
- Recovery of light non-aqueous phase liquid (LNAPL) at AOI #53
- Implementation of a long-term groundwater monitoring program at AOI #53
- Underground storage tank closure under Michigan Act 451 Part 213 at AOI #50 and AOI #52

USEPA concurred with a recommendation to terminate LNAPL recovery at AOI #53 in a May 6, 2009 letter. The long term groundwater monitoring at AOI #53 was completed in 2010.

On March 31, 2011, the Trust took title to the Property, and subsequently conveyed it to RACER Properties LLC, an entity wholly owned by the Trust. The Trust was established and assumed the rights, title, and interest of Motors Liquidation Company (as successor to GM Corp.) in and to the Property pursuant to an Environmental Response Trust Consent Decree and Settlement Agreement ("Settlement Agreement") entered by the U.S. Bankruptcy Court for the Southern District of New York on March 29, 2011, in the case of *In re Motors Liquidation Company*, etc. et al., Debtors, Case No. 09-50026 (REG), among the Debtors, the United States of America, certain states including the State of Michigan, the Saint Regis Mohawk Tribe, and EPLET, LLC (not individually but solely in its representative capacity as Administrative Trustee of the Trust).

USEPA preliminarily approved a RCRA CACC Report for the Property with the exception of confirmed MDEQ release numbers C-0235-90, C-0776-90, and C-1831-91(AOI #50 (DUCO Stores)). Subsequently it was agreed upon between USEPA and MDEQ that the above releases at AOI #50 would be addressed pursuant to RCRA Corrective Action under USEPA oversight.

Based on the existing information from the investigations conducted at the Property, constituents were detected in soil above residential, groundwater-surface water interface (GSI), and non-residential cleanup criteria. Because the Property will be restricted to non-residential, residential criteria do not apply to it. Constituents at the Property detected at concentrations that exceed non-residential criteria include: 1,1-dichloroethene, 1,1,1-trichloroethane, 1,2,4-trimethylbenzene,

1,3,5-trimethylbenzene, benzene, ethylbenzene, lead, methyl tertbutyl ether, naphthalene, phenanthrene, tetrachloroethene, toluene, trichloroethene, vinyl chloride, and xylenes.

Soil and groundwater contamination remain at levels that do not allow unrestricted use of the Property. Public health will be protected by limiting the use of the Property to non-residential (Exhibit 3), prohibiting the use of groundwater, and requiring a vapor intrusion assessment to be completed or a vapor barrier and/or mitigation system installed prior to construction of any new building(s) or occupying the designated portion of the existing building (as identified in Exhibit 4). Restricting the Property to uses consistent with the exposure assumptions identified above will allow the use to be protective of the public health, safety, and welfare, and the environment.

Definitions

"Grantee" shall mean MDEQ, its respective successor entities, and those persons or entities acting on its behalf.

"Grantor" shall mean RACER Properties LLC, an entity wholly-owned by the Trust, the title holder of the Property at the time this Restrictive Covenant was executed, or any future title holder of the Property or some relevant sub-portion of the Property.

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"NREPA" shall mean the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.101 *et seq*.

"Owner" means at any given time the then-current fee title holder(s) and the holder(s) of a life estate of the Property or any portion thereof, including the fee title holder's lessees and those persons or entities authorized to act on the fee title holder's behalf.

"Part 201" shall mean Part 201, Environmental Remediation, of NREPA.

"Property" shall mean the property legally described in Exhibit 1.

"USEPA" means the United States Environmental Protection Agency, its successor entities, and those persons or entities acting on its behalf.

All other terms used in this document which are defined in Part 3, Definitions, of NREPA, Part 111, Part 201, or the Part 111 and Part 201 Administrative Rules, shall have the same meaning in this document as in those statutes and rules as on the date this Restrictive Covenant is made.

NOW THEREFORE,

Declaration of Land Use and Resource Use Restrictions

The Grantor, as current fee title holder of the Property, hereby declares and covenants that the Property shall be subject to those restrictions on use described below, in addition to the restrictions in the 2007 Restrictive Covenant, and intends that said restrictions and covenants shall run with the land, and may be enforced in perpetuity against the Owner by the following entities: (1) the Grantor, if it is no longer owner; (2) MDEQ; or (3) USEPA.

1. Land Use Prohibitions. The Owner shall prohibit all uses of the Property that are not compatible with the non-residential land use category under MCL 324.20120a(1)(b) and generally described in the Description of Allowable Uses, attached hereto as Exhibit 3.

   Part 201 cleanup criteria for land use-based response activities are located in the Government Documents Section of the State of Michigan Library, MCL 324.201201 *et seq*. effective December 31, 2013, and Michigan Administrative Code (MAC) Rule (R) 299.5701 – R 299.5727, effective December 31, 2013.

2. Activities Prohibited. The Owner shall prohibit activities on the Property that may result in exposures above the non-residential land use category. These prohibited activities include:

   a. No drinking water wells may be installed or used on the Property.

   b. No groundwater extraction wells may be installed or used on the Property, except for wells and devices that are part of an MDEQ- or USEPA-approved response activity and for short-term dewatering for construction purposes, provided the dewatering, including management and disposal of the groundwater, is conducted in accordance with all applicable environmental laws and does not cause or result in a new release, exacerbation of any pre-existing environmental condition, or any other violation of environmental laws.

   c. No excavation and transport of any saturated soils from the Property may be completed without MDEQ or USEPA approval.

   d. No contaminated soils may be relocated on the Property except as provided for under Part 201, Section 20120c, MCL 324.20120c.

   e. If Owner elects to remove any slabs, pavement, or other impervious surface on the Property, Owner shall be responsible for any and all obligations under environmental laws arising from any such removal, alteration, or disturbance, whether or not caused by, arising from or related to, an environmental condition.

3. Monitoring Wells. The Owner shall not remove, disturb, or damage any monitoring wells on the Property without MDEQ or USEPA approval.

4. Contaminated Soil Management. The Owner shall manage contaminated soils, media, and/or debris and all other soils located on the Property in accordance with the requirements of Part 111 and RCRA Subtitle C, the administrative rules promulgated pursuant to Part 111 and RCRA, and all other relevant state and federal laws, including but not limited to MCL 324.20120c; this provision regarding contaminated soil management also applies in the event that the Owner elects to remove any slabs, pavement, or other impervious surface on the Property.

5. Soil Vapor Management. The Owner shall not build on or occupy the portion of the Property included in the vapor intrusion (VI) restriction areas of the Property identified in Exhibit 4 without first completing one of the following:

   Option 1) Demonstrate to the satisfaction of MDEQ and USEPA the absence of an unacceptable vapor intrusion risk to human health in the existing or any newly constructed buildings in the area identified in Exhibit 4; or

   Option 2) With concurrence from MDEQ or USEPA, install, operate and maintain a vapor barrier and/or mitigation system designed to eliminate the potential for subsurface vapor phase hazardous substances to migrate into any building at concentrations greater than applicable criteria. Continued operation and maintenance of the vapor barrier and/or mitigation system is required until evidence is presented to MDEQ and USEPA consistent with Option 1 above. The prohibition not to build on or occupy the portion of the Property included in the VI restriction areas does not apply to short-term occupancy of a building solely for purposes of construction, renovation, repair, or other necessary short-term activities as long as adequate health and safety precautions for workers involved in such construction, renovation, repair, or other short term activities are employed during these activities, and these activities are performed in compliance with Section 20107a of NREPA. Such short-term activities and short-term occupancy would not be expected to exceed six months in duration, and MDEQ or USEPA must be informed if the activities or occupancy are expected to exceed six months.

6. Access. The Owner shall grant to MDEQ and USEPA the right to enter the Property at reasonable times for the purpose of determining and monitoring compliance with this Restrictive Covenant, including the right to take samples, inspect the operation of the corrective measures, and inspect any records relating thereto, and to perform any actions necessary to maintain compliance with Parts 111 and 201, applicable federal laws and regulations, and the USEPA Final Decision and the subsequent CACC Report.

7. Transfer of Interest. The Grantor shall provide notice at the addresses provided in this document to MDEQ and USEPA of the Grantor's intent to transfer any interest in the Property, or any portion thereof, at least fourteen (14) business days prior to consummating the conveyance. A conveyance of title, easement, or other interest in the Property shall not be consummated by Grantor without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant and the applicable provisions of Section 20116 of NREPA. The Grantor shall include in any

instrument conveying any interest in any portion of the Property, including, but not limited to, deeds, leases, and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF RESTRICTIVE COVENANT AND ENVIRONMENTAL PROTECTION EASEMENT, DATED _____[*month, day, year*], AND RECORDED WITH THE OAKLAND COUNTY REGISTER OF DEEDS, LIBER _____, PAGE _____.

8. Notices. Any notice, demand, request, consent, approval, or communication that is required to be made or obtained under this Restrictive Covenant shall be made in writing; include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant; include the Facility MID Number: MID005356902 and MDEQ Reference Number: RC-WHMD-111-14-006; and shall be served either personally, or sent via first class mail, postage prepaid, as follows:

For USEPA:

Director
Land and Chemicals Division (DR-8J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, IL 60604

with a copy to:

Office of Regional Counsel (C-14J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, IL 60604

For MDEQ:

Chief
Office of Waste Management and Radiological Protection
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909-7741

9. Term. This Restrictive Covenant shall run with the Property and shall be binding on the Owner, and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control.

10. Enforcement. The Grantor is entitled to enforce the restrictions and covenants of this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against subsequent Owners of all or part of the Property. The Grantor, on

behalf of itself, and its successors in title, intends and agrees that MDEQ and USEPA are entitled to enforce the restrictions and covenants in this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against the Grantor, as Owner, and thereafter against subsequent Owners of all or part of the Property. All remedies available hereunder shall be in addition to any and all other remedies at law or equity.

11. Third Party Beneficiary. The Grantor, on behalf of itself and its successors, and assigns, hereby agrees that the United States, acting by and through USEPA, its successors and assigns shall be a third party beneficiary (Third Party Beneficiary) of all the benefits and rights set out in the restrictions, covenants, easements, exceptions, notifications, conditions, and agreements herein, and that the Third Party Beneficiary shall have the right to enforce the restrictions described herein as if it was a party hereto. No other rights in third parties are intended by this Restrictive Covenant, and no other person or entity shall have any rights or authorities hereunder to enforce these restrictions, terms, conditions or obligations beyond the Grantor, MDEQ, and their successors and assigns, and the Third Party Beneficiary.

12. USEPA Entry and Access. Nothing in this Restrictive Covenant shall limit or otherwise affect USEPA's right of entry and access, or authority to undertake actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. §§ 9601 *et seq.*) or under the National Contingency Plan (40 C.F.R. Part 300), and any successor statutory provisions, or other state or federal law. The Grantor consents to officers, employees, contractors, and authorized representatives of USEPA entering and having continued access to this Property for the purposes described in Paragraph 6 (Access) of this Restrictive Covenant.

13. Modification / Release / Rescission. The Grantor or Owner may request in writing to MDEQ or USEPA, at the addresses provided in herein, modifications to, or release or rescission of, this Restrictive Covenant. This Restrictive Covenant may be modified, released or rescinded only with the written approval of the USEPA and MDEQ. Any approved modification to, or release or rescission of, this Restrictive Covenant shall be filed with the appropriate Registrar of Deeds by the Grantor or Owner and a certified copy shall be returned to MDEQ and USEPA at the addresses provided herein.

14. Severability. If any provision of this Restrictive Covenant is held to be invalid by a court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions of this Restrictive Covenant, and all other provisions shall continue to remain in full force and effect.

15. Limitation on the Trust's Liability. The Trust's and the Administrative Trustee's liability is limited by the terms and conditions of the Settlement Agreement, which are incorporated herein by reference.

16. Authority to Execute Restrictive Covenant. The undersigned person executing this Restrictive Covenant represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

17. Miscellaneous:

a. Controlling Law: The interpretation and performance of this Restrictive Covenant shall be governed by the laws of the United States as to the obligations referred to in the 1998 Administrative Order on Consent, the USEPA Final Decision, and the CACC Report; and regulations of the State of Michigan for all other purposes hereunder (without reference to choice of laws principles thereof). The right to enforce the conditions and restrictions in this Restrictive Covenant are in addition to other rights and remedies that may be available, including, but not limited to, administrative and judicial remedies under CERCLA or Part 201 of NREPA.

b. Liberal Construction: Any general rule of construction to the contrary notwithstanding, this Restrictive Covenant shall be liberally construed to affect the purpose of this Restrictive Covenant, the 2007 Restrictive Covenant, and the policy and purpose of RCRA and the land use restrictions and prospective use limitations required by Part 201. If any provision of this Restrictive Covenant is found to be ambiguous, an interpretation consistent with the purpose of this Restrictive Covenant and the 2007 Restrictive Covenant that would render the provision valid shall be favored over any interpretation that would render it invalid.

[Signatures follow]

IN WITNESS WHEREOF, RACER Properties LLC has caused this Restrictive Covenant, RC-WHMD-111-14-006, to be executed on this 21st day of August, 2014.

RACER PROPERTIES LLC

By: Revitalizing Auto Communities Environmental Trust, Sole Member of RACER Properties LLC

By: EPLET, LLC, acting solely in its representative capacity as Administrative Trustee of Revitalizing Auto Communities Environmental Response Trust

By: _____
ELLIOTT P. LAWS, not individually, but acting solely in his representative capacity as Managing Member of EPLET, LLC,

District of Columbia
~~STATE OF MICHIGAN~~
~~COUNTY~~ OF Washington City

The foregoing instrument was acknowledged before me this 21st day of August, 2014 by ELLIOTT P. LAWS, as Managing Member of EPLET, LLC, acting solely in its capacity as Administrative Trustee of Revitalizing Auto Communities Environmental Response Trust as Sole Member of RACER Properties LLC, a Delaware limited liability company, on behalf of the company.

MYUNG H. WANG
NOTARY PUBLIC
MY COMMISSION EXPIRES 6/14/2019
DISTRICT OF COLUMBIA

_____
Notary Public Signature

Name of Notary Public Myung Wang
Notary Public, ~~State of~~ District of Columbia
~~County of~~ City of Washington
My Commission Expires: June 14, 2019
Acting in the County of N/A

This document is exempt from state and county transfer taxes pursuant MCL 207.505(a) and MCL 207.526(a).]

When recorded return to:
David Favero
RACER Trust, Deputy Cleanup Manager – Michigan
500 Woodward Avenue, Suite 1510
Detroit, Michigan 48226

EXHIBIT 1

LEGAL DESCRIPTION

Real property in the City of Pontiac, County of Oakland, State of Michigan, described as follows:

Parcel 25:
Lots 1, 2 and 4, and Part of Lots 5 and 11, Assessor's Plat No 110, as recorded in Liber 52, Page 26 of Plats, Oakland County Records, Also Part of Section 3, Town 2 North, Range 10 East, City of Pontiac, Oakland County, Michigan, described as: Beginning at a point distant North 87 degrees 23 minutes 00 seconds West, 1334.96 feet from the North 1/4 corner of said Section 3; thence South 02 degrees 36 minutes 20 seconds West, 2236.05 feet; thence along a curve to the left, radius 319.50 feet, chord bears South 19 degrees 50 minutes 14 seconds East, 243.95 feet, distance of 250.30 feet; thence South 42 degrees 16 minutes 49 seconds East, 511.12 feet; thence along a curve to the left, radius 358 feet, chore bears South 65 degrees 55 minutes 06 seconds East, 87.18 feet, distance of 87.40 feet; thence South 72 degrees 54 minutes 43 seconds East, 82.10 feet; thence along a curve to the right, radius 393 feet, chord bears South 54 degrees 06 minutes 50 seconds East, 252.20 feet, distance of 256.77 feet; thence South 35 degrees 22 minutes 57 seconds East, 5.04 feet; thence East 356.59 feet; thence North 45 degrees 00 minutes 00 seconds East, 52.32 feet; thence South 86 degrees 19 minutes 30 seconds East, 130.98 feet; thence South 45 degrees 00 minutes 00 seconds East, 40.45 feet; thence East 413.69 feet; thence South 04 degrees 42 minutes 41 seconds West, 141.05 feet; thence along a curve to the right, radius 700 feet, chord bears South 16 degrees 58 minutes 24 seconds West, 297.34 feet, distance of 299.62 feet; thence South 29 degrees 14 minutes 08 seconds West, 85.68 feet; thence along a curve to the left, radius 520 feet, chord bears South 07 degrees 58 minutes 11 seconds East, 628.86 feet, distance of 675.33 feet to the Northeasterly right of way line of Grand Trunk Western Railroad; thence North 45 degrees 10 minutes 30 seconds West, 993.14 feet; thence North 39 degrees 38 minutes 57 seconds West, 237.47 feet; thence along a curve to the right, radius 564.59 feet, chord bears North 27 degrees 37 minutes 20 seconds West, 235.29 feet, distance of 237.03 feet to the Southerly line of Lot 5 of said Subdivision; thence South 69 degrees 19 minutes 44 seconds West, 211.25 feet; thence North 45 degrees 17 minutes 26 seconds West, 1000 feet; thence North 47 degrees 03 minutes 06 seconds West, 813.17 feet to the most Westerly corner of said Lot 5; thence Northeasterly 84.99 feet to the most Southerly corner of Lot 1 of said Subdivision; thence Northwesterly 376.47 feet to the Southwest corner of said Lot 1; thence Northerly 1213.01 feet along the West line of Lots 1 and 2 to the Northwest corner of Lot 2; thence Easterly 392.45 feet to the Southwest corner of Lot 4; thence Northerly 431.26 feet to the North line of Section 3; thence South 87 degrees 23 minutes 00 seconds East to the Place of Beginning, except that part in South Boulevard.

Parcel 26:
Lot 3 of Assessor's Plat No. 110, recorded in Liber 52, Page 26 of Plats, Oakland County Records.

Parcel 27:
Part of Lot 2 of Assessor's Plat No 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, described as: Beginning at a point distant South 01 degree 54 minutes 22 seconds West, 50.08 feet and North 84 degrees 47 minutes 29 seconds West, 49.75 feet from

the Northeast corner of Section 4; thence North 84 degrees 47 minutes 29 seconds West, 249.05 feet; thence South 03 degrees 31 minutes 21 seconds West, 248.07 feet; thence South 14 degrees 35 minutes 31 seconds West, 283.65 feet; thence South 87 degrees 51 minutes 14 seconds East, 300.03 feet; thence North 03 degrees 54 minutes 16 seconds East, 511.80 feet to the Place of Beginning. And, Part of Lot 2 of Assessor's Plat No 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, described as: Beginning at a point distant North 89 degrees 08 minutes 11 seconds West, 374.57 feet and South 01 degree 04 minutes 03 seconds East, 31 feet and South 89 degrees 08 minutes 11 seconds East, 74.90 feet and South 00 degrees 49 minutes 20 seconds East, 263.76 feet and South 10 degrees 18 minutes 08 seconds West, 284.53 feet from the Northeast corner of Section 4; thence North 87 degrees 51 minutes 17 seconds East, 300.13 feet; thence North 00 degrees 23 minutes 29 seconds West, 511.94 feet; thence South 89 degrees 05 minutes 58 seconds East, 49.75 feet; thence South 00 degrees 25 minutes 10 seconds East, 576.32 feet; thence South 48 degrees 09 minutes 24 seconds West, 707.27 feet; thence North 38 degrees 09 minutes 50 seconds East, 179.80 feet; thence North 02 degrees 08 minutes 28 seconds West, 23.19 feet; thence North 38 degrees 09 minutes 50 seconds East, 85.75 feet; thence along a curve to the left, radius 441.83 feet, chord bears North 24 degrees 13 minutes 59 seconds East, 212.74 feet, distance of 214.85 feet to the Place of Beginning.

Parcel 29:
Lot 3 of Assessor's Plat No 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, except the Southwesterly part thereof, measured 30.21 feet along the Northwesterly line and 102.11 feet along the Southeasterly line, also except that part in said parcel, described as: Beginning at the intersection of the Northeasterly line of Grand Trunk Western Railroad and the Northwesterly lot line; thence South 51 degrees 42 minutes 20 seconds East, 48.79 feet; thence along a curve concave Northwesterly, radius 1136.74 feet, chord bears North 39 degrees 30 minutes 16 seconds East, 53.18 feet, distance of 53.18 feet; thence North 38 degrees 09 minutes 50 seconds East, 83.64 feet to the Northwesterly lot line; thence South 58 degrees 16 minutes 05 seconds West, 145.56 feet to the Place of Beginning.

Parcel 30:
Part of Lots 4, 5, and 6 of Assessor's Plat No. 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, described as follows: Beginning at a point on the East line of Section 4, located South 00 degrees 25 minutes 10 seconds East, 1525.37 feet from the Northeast corner of said Section 4, said point being the Northeasterly corner of Lot 4; thence South 73 degrees 16 minutes 54 seconds West, 114.3 feet; thence South 51 degrees 46 minutes 25 seconds East, 135 feet, more or less, to a point on the East line of Lot 6; thence North 00 degrees 25 minutes 10 seconds West, 119.83 feet to the Place of Beginning.

The above-described parcels are the same land as described in First American Title Insurance Company Commitment Number NCS-633987-MICH dated February 7, 2014.

EXHIBIT 2

DRAWING ILLUSTRATING DESCRIPTION OF PROPERTY

[Drawing on following page]

SURVEYED BEARING & DISTANCES

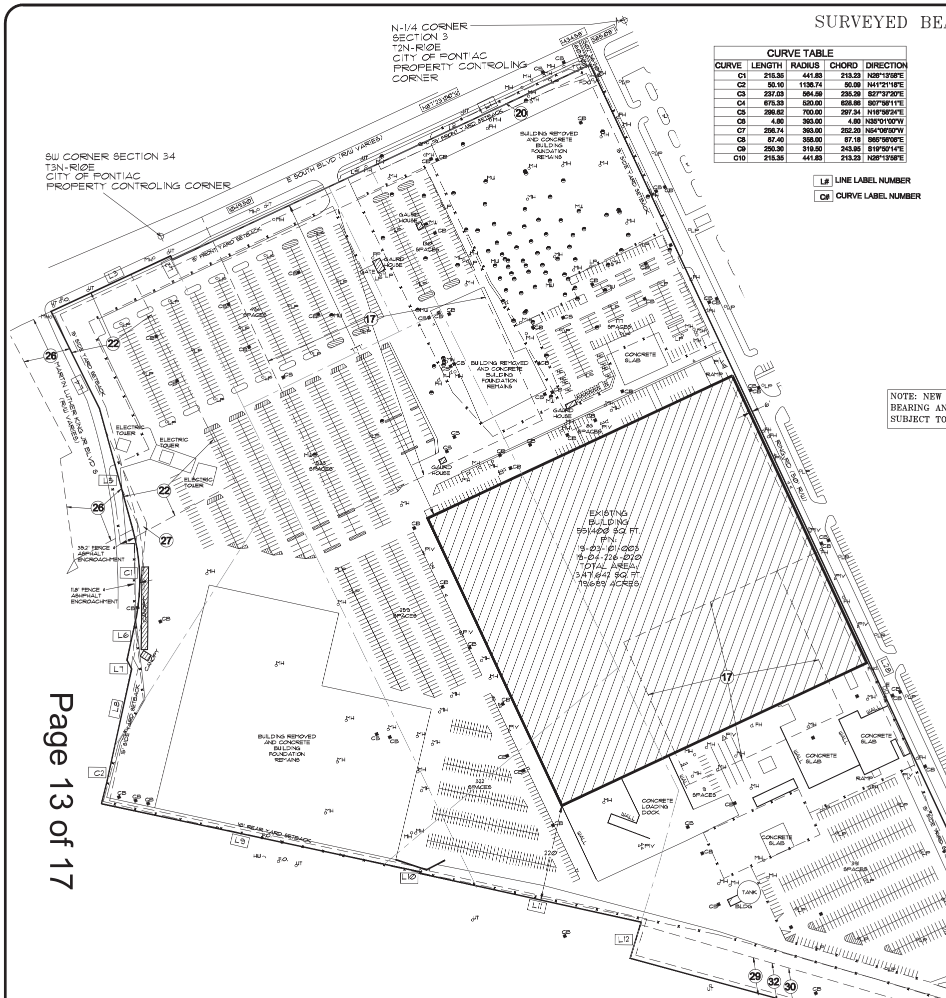
CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	DIRECTION
C1	215.35	441.83	213.23	N26°13'58"E
C2	50.10	1136.74	50.09	N41°21'18"E
C3	237.03	564.59	235.29	S27°37'20"E
C4	675.33	520.00	628.86	S07°58'11"E
C5	299.62	700.00	297.34	N16°58'24"E
C6	4.80	393.00	4.80	N35°01'00"W
C7	256.74	393.00	252.20	N54°06'50"W
C8	87.40	358.00	87.18	S65°56'06"E
C9	250.30	319.50	243.95	S19°50'14"E
C10	215.35	441.83	213.23	N26°13'58"E

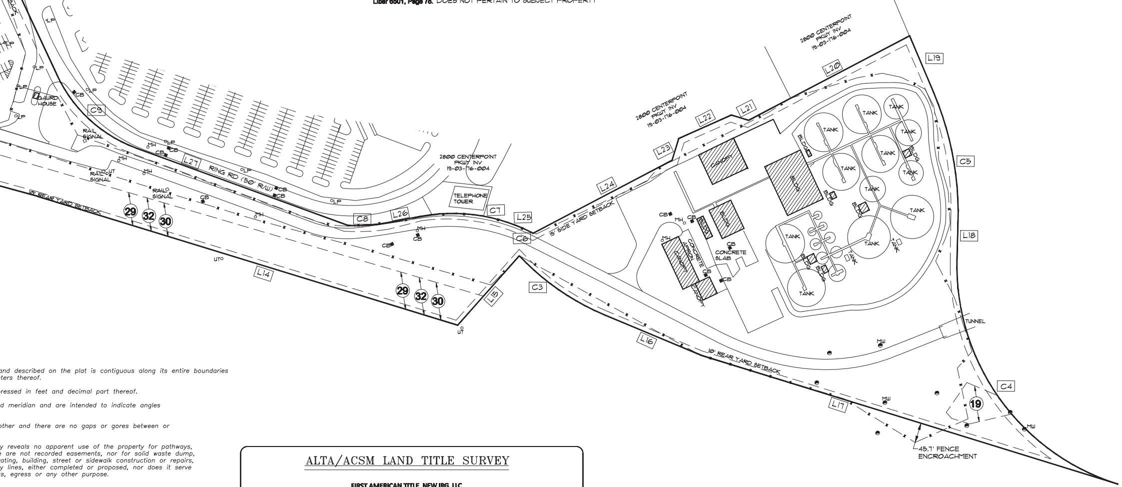
L# LINE LABEL NUMBER

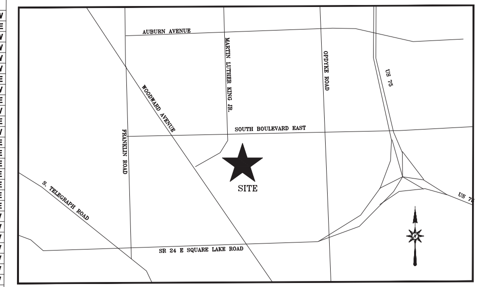
C# CURVE LABEL NUMBER

LINE TABLE		
LINE	LENGTH	BEARING
L1	1048.38	N87°23'00"W
L2	10.00	N01°32'09"E
L3	299.36	N87°13'59"W
L4	248.13	S01°12'32"W
L5	283.58	S12°16'26"W
L6	85.75	S40°05'34"W
L7	23.19	S00°12'42"E
L8	263.57	S40°05'34"W
L9	742.68	S50°16'31"E
L10	4.03	S74°44'09"W
L11	515.91	S49°54'16"E
L12	85.60	S44°39'23"W
L13	813.17	S47°03'06"E
L14	1000.00	S45°17'26"E
L15	211.25	N69°19'44"E
L16	237.47	S39°38'57"E
L17	993.14	S45°10'30"E
L18	85.68	N29°14'06"E
L19	141.05	N04°42'41"E
L20	413.69	N90°00'00"W
L21	40.45	N45°00'00"W
L22	130.98	N86°19'30"W
L23	52.32	S45°00'00"W
L24	356.63	N90°00'00"W
L25	0.22	N35°22'57"W
L26	82.10	N72°54'43"W
L27	511.12	N42°16'49"W
L28	2175.92	N02°36'20"E

NOTE: NEW LEGAL AND PLAT ARE TO BE PROVIDED BY SURVEYOR. BEARING AND DISTANCES ARE BELIEVED TO BE ACCURATE, BUT ARE SUBJECT TO CHANGE WITH NEW BOUNDARY SURVEY.







VICINITY MAP

PROPERTY DESCRIPTION

Real property in the City of Pontiac, County of Oakland, State of Michigan, described as follows:

Parcel 25:

Lots 1, 2 and 4, and Part of Lots 5 and 11, Assessor's Plat No 110, as recorded in Liber 52, Page 26 of Plats, Oakland County Records, Also Part of Section 3, Town 2 North, Range 10 East, City of Pontiac, Oakland County, Michigan, described as: Beginning at a point distant North 87 degrees 23 minutes 00 seconds West, 1334.96 feet from the North 1/4 corner of said Section 3; thence South 02 degrees 36 minutes 20 seconds West, 2236.05 feet; thence along a curve to the left, radius 319.50 feet, chord bears South 19 degrees 50 minutes 14 seconds East, 243.95 feet, distance of 250.30 feet; thence South 42 degrees 16 minutes 49 seconds East, 511.12 feet; thence along a curve to the left, radius 358 feet, chord bears South 65 degrees 55 minutes 06 seconds East, 87.18 feet, distance of 87.40 feet; thence South 72 degrees 54 minutes 43 seconds East, 82.10 feet; thence along a curve to the right, radius 393 feet, chord bears South 54 degrees 06 minutes 50 seconds East, 252.20 feet, distance of 256.77 feet; thence South 35 degrees 22 minutes 57 seconds East, 5.04 feet; thence East 356.59 feet; thence North 45 degrees 00 minutes 00 seconds East, 52.32 feet; thence South 86 degrees 19 minutes 30 seconds East, 130.98 feet; thence South 45 degrees 00 minutes 00 seconds East, 40.45 feet; thence East 413.69 feet; thence South 04 degrees 42 minutes 41 seconds West, 141.05 feet; thence along a curve to the right, radius 700 feet, chord bears South 16 degrees 58 minutes 24 seconds West, 297.34 feet, distance of 299.62 feet; thence South 29 degrees 14 minutes 06 seconds West, 85.68 feet; thence along a curve to the left, radius 520 feet, chord bears South 07 degrees 58 minutes 11 seconds East, 628.86 feet, distance of 675.33 feet to the Northeasterly right of way line of Grand Trunk Western Railroad; thence North 45 degrees 10 minutes 30 seconds West, 993.14 feet; thence North 39 degrees 38 minutes 57 seconds West, 237.47 feet; thence along a curve to the right, radius 564.59 feet, chord bears North 27 degrees 37 minutes 20 seconds West, 235.29 feet, distance of 237.03 feet to the Southerly line of Lot 5 of said Subdivision; thence South 69 degrees 19 minutes 44 seconds West, 211.25 feet; thence North 45 degrees 17 minutes 26 seconds West, 1000 feet; thence North 47 degrees 03 minutes 06 seconds West, 813.17 feet to the most Westerly corner of said Lot 5; thence Northeasterly 84.99 feet to the most Southerly corner of Lot 1 of said Subdivision; thence Northwesterly 376.47 feet to the Southwest corner of said Lot 1; thence Northerly 1213.01 feet along the West line of Lots 1 and 2 to the Northwest corner of Lot 2; thence Easterly 392.45 feet to the Southwest corner of Lot 4; thence Northerly 431.26 feet to the North line of Section 3; thence South 87 degrees 23 minutes 00 seconds East to the Place of Beginning, except that part in South Boulevard.

Parcel 26:

Lot 3 of Assessor's Plat No. 110, recorded in Liber 52, Page 26 of Plats, Oakland County Records.

Parcel 27:

Part of Lot 2 of Assessor's Plat No 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, described as: Beginning at a point distant South 01 degree 54 minutes 22 seconds West, 50.08 feet and North 84 degrees 47 minutes 29 seconds West, 49.75 feet from the Northeast corner of Section 4; thence North 84 degrees 47 minutes 29 seconds West, 249.05 feet; thence South 03 degrees 31 minutes 21 seconds West, 248.07 feet; thence South 14 degrees 35 minutes 31 seconds West, 283.65 feet; thence South 87 degrees 51 minutes 14 seconds East, 300.03 feet; thence North 03 degrees 54 minutes 16 seconds East, 511.80 feet to the Place of Beginning.

And, Part of Lot 2 of Assessor's Plat No 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, described as: Beginning at a point distant North 89 degrees 06 minutes 11 seconds West, 374.57 feet and South 01 degree 04 minutes 03 seconds East, 31 feet and South 89 degrees 06 minutes 11 seconds East, 74.90 feet and South 00 degrees 49 minutes 20 seconds East, 263.76 feet and South 10 degrees 18 minutes 08 seconds West, 284.53 feet from the Northeast corner of Section 4; thence North 87 degrees 51 minutes 17 seconds East, 300.13 feet; thence North 00 degrees 23 minutes 29 seconds West, 511.94 feet; thence South 89 degrees 05 minutes 58 seconds East, 49.75 feet; thence South 00 degrees 25 minutes 10 seconds East, 576.32 feet; thence South 48 degrees 09 minutes 24 seconds West, 707.27 feet; thence North 38 degrees 09 minutes 50 seconds East, 179.80 feet; thence North 02 degrees 08 minutes 28 seconds West, 23.19 feet; thence North 38 degrees 09 minutes 50 seconds East, 85.75 feet; thence along a curve to the left, radius 441.83 feet, chord bears North 24 degrees 13 minutes 59 seconds East, 212.74 feet, distance of 214.85 feet to the Place of Beginning.

Parcel 29:

Lot 3 of Assessor's Plat No 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, except the Southwesterly part thereof, measured 30.21 feet along the Northwesterly line and 102.11 feet along the Southeasterly line, also except that part in said parcel, described as: Beginning at the intersection of the Northeasterly line of Grand Trunk Western Railroad and the Northwesterly lot line; thence South 51 degrees 42 minutes 20 seconds East, 48.79 feet; thence along a curve concave Northwesterly, radius 1136.74 feet, chord bears North 39 degrees 30 minutes 16 seconds East, 53.18 feet, distance of 53.18 feet; thence North 38 degrees 09 minutes 50 seconds East, 83.64 feet to the Northwesterly lot line; thence South 58 degrees 16 minutes 05 seconds West, 145.56 feet to the Place of Beginning.

Parcel 30:

Part of Lots 4, 5, and 6 of Assessor's Plat No. 98, as recorded in Liber IB of Assessor's Plats, Page 98, Oakland County Records, described as follows: Beginning at a point on the East line of Section 4, located South 00 degrees 25 minutes 10 seconds East, 1525.37 feet from the Northeast corner of said Section 4, said point being the Northeasterly corner of Lot 4; thence South 73 degrees 16 minutes 54 seconds West, 114.3 feet; thence South 51 degrees 46 minutes 25 seconds East, 135 feet, more or less, to a point on the East line of Lot 6; thence North 00 degrees 25 minutes 10 seconds West, 119.83 feet to the Place of Beginning.

The above-described parcels are the same land as described in First American Title Insurance Company Commitment Number NCS-633987-MICH dated February 7, 2014.

6. All of the terms and provisions set forth and contained in that certain Lease between Tower Asset Sub, Inc., a Delaware corporation, Lessor, and MetroPCS Michigan, Inc., a Delaware corporation, Lessee, recorded in Liber 39524, Page 238. DOES NOT PERTAIN TO SUBJECT PROPERTY

7. All of the terms and provisions set forth and contained in that certain Lease between William Winter, Lessor, and PowerFone, Inc., d/b/a Nextel Communications, Lessee, a memorandum of which is recorded in Liber 15485, Page 560 and Memorandum of Assignment recorded in Liber 24042, Page 138 and Liber 24042, Page 147. DOES NOT PERTAIN TO SUBJECT PROPERTY

8. All of the terms and provisions set forth and contained in that certain Lease between Center Point Funding, Limited Partnership, a Delaware limited partnership, Lessor, and General Motors Corporation, a Delaware corporation, Lessee, a memorandum of which is recorded in Liber 14116, Page 781. PERTAINS, BLANKET EASEMENT (LOT 5 OF ASSESOR'S PLAT NO. 110)

9. All of the terms and provisions set forth and contained in that certain Lease between W. J. O'Keefe, Executive Director, Corporate Services, of General Motors Corporation, a Delaware corporation, Lessor, and Douglas M. Etkin, President of Centerpoint Holdings, Inc., a Michigan corporation, the General Partner of Centerpoint Associates Limited Partnership, a Michigan limited partnership, Lessee, recorded in Liber 14985, Page 893 and Amendment to Affidavit Re: Lease of Real Estate recorded in Liber 15597, Page 899.

16. The terms, provisions and conditions contained in that certain Memorandum of Agreement Regarding Shared Utilities and Other Matters recorded September 27, 2011 in Liber 43414, Page 542. PERTAINS, BLANKET EASEMENT

17. Building and use restrictions and other terms covenants and conditions, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604 (c), disclosed by instrument recorded in Liber 42390, Page 712 and Liber 41821, Page 853. AS SHOWN

18. The terms, provisions and conditions contained in that certain Notice Regarding Statutory Obligations Applicable to Property recorded February 24, 2010 in Liber 41864, Page 403. PERTAINS, BLANKET EASEMENT

19. Building and use restrictions and other terms covenants and conditions, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604 (c), disclosed by instrument recorded in Liber 39011, Page 84 and Amended and Restated Declaration of Restrictive Covenant recorded in Liber 41207, Page 749. AS SHOWN

20. Grant of Easement for Sanitary Sewer and Water Main granted to the City of Pontiac, a municipal corporation disclosed by instrument recorded in Liber 22350, Page 627, Oakland County Records. AS SHOWN

21. The terms, provisions and conditions contained in that certain Notice Regarding Statutory Obligations Applicable to Property recorded November 29, 2000 in Liber 22059, Page 802. PERTAINS, BLANKET EASEMENT

22. Easement for Overhead and Underground Electric Wires granted to The Detroit Edison Company, a Michigan corporation disclosed by instrument recorded in Liber 15758, Page 119, Amendment to Easement for Overhead and Underground Electric Wires recorded in Liber 19640, Page 595. Second Amendment to Easement for Overhead and Underground Electric Wires recorded in Liber 25457, Page 473, Oakland County Records. AS SHOWN

23. The terms, provisions and conditions contained in that certain Easement Agreement recorded September 28, 1984 in Liber 8795, Page 762. PERTAINS, BLANKET EASEMENT

24. The terms, provisions and conditions contained in that-certain Assignment, Conveyance and Assumption Agreement recorded October 6, 1986 in Liber 9578, Page 141. PERTAINS, BLANKET EASEMENT

25. Easement for Gas Pipeline granted to Consumers Power Company, a Michigan corporation disclosed by instrument recorded in Liber 10929, Page 783, Oakland County Records. DOES NOT PERTAIN TO SUBJECT PROPERTY

26. Roadway Easement granted to the City of Pontiac, a Michigan municipal corporation disclosed by instrument recorded in Liber 6507, Page 184, Oakland County Records. AS SHOWN

27. Easement granted to the City of Pontiac, a municipal corporation disclosed by instrument recorded in Liber 4862, Page 644, Oakland County Records. AS SHOWN

28. Sewer Easement Agreement granted to the City of Pontiac, a Michigan municipal corporation, and its successors and assigns forever disclosed by instrument recorded in Liber 4622, Page 897, Oakland County Records. DOES NOT PERTAIN, FOLLOWS CENTERLINE OF MARTIN LUTHER KING JR BLVD S

29. Right of Way Agreement granted to The Detroit Edison Company disclosed by instrument recorded in Liber 385, Page 93, Affidavit of Lost Quit Claim Deed recorded in Liber 38860, Page 784 and Liber 38860, Page 789 and Quit Claim Deeds recorded in Liber 39247, Page 259 and Liber 39247, Page 262, Oakland County Records. AS SHOWN

30. Easement granted to The Detroit Edison Company disclosed by instrument recorded in Liber 70 of Miscellaneous Record, Page 15, Affidavit of Lost Quit Claim Deeds recorded in Liber 38860, Page 775 and Liber 38860, Page 780 and Quit Claim Deeds recorded in Liber 39247, Page 252 and Liber 39247, Page 255, Oakland County Records. AS SHOWN

31. Right of Way granted to The Detroit Edison Co. disclosed by instrument recorded in Liber 5 of Miscellaneous Record, Page 6, Affidavit of Lost Quit Claim Deeds recorded in Liber 38860, Page 798 and Liber 38860, Page 793 and Quit Claim Deeds recorded in Liber 39247, Page 270 and Liber 39247, Page 266, Oakland County Records. PERTAINS, BUT CAN NOT BE PLATTED

32. The terms, provisions and conditions contained in that certain Instruments recorded in Liber 1574, Page 55, Liber 3431, Page 356, Liber 4266, Page 188, Liber 2851, Page 68 and Liber 15758, Page 116. AS SHOWN

33. The terms, provisions and conditions contained in that certain Agreement recorded July 15, 1975 in Liber 6501, Page 78. DOES NOT PERTAIN TO SUBJECT PROPERTY

LEGEND

- ● FOUND I.P.
- × FOUND CROSS NOTCH
- □ FOUND BRASS CAP
- ■ FOUND CONCRETE MONUMENT
- ○ FOUND FENCE POST
- ⊗ SET CROSS NOTCH
- FIRE HYDRANT
- △ P.I.V. CONNECTION
- ■ CATCH BASIN
- MH MAN HOLE
- GV GAS VALVE
- MONITORING WELL
- UT UTILITY POLE
- LP LIGHT POLE
- FDC FIRE DEPARTMENT CONNECTION
- FO FIBER OPTIC
- X–X–X FENCE LINE
- — — — EASEMENT LINE

GRAPHIC SCALE

0' 100' 200' 300'

SCALE: 1" = 100'

ENCROACHMENT NOTES:

11.8' FENCE & ASPHALT ENCROACHMENT OVER PROPERTY LINE
35.2' FENCE & ASPHALT ENCROACHMENT OVER PROPERTY LINE
45.7' FENCE ENCROACHMENT OVER PROPERTY LINE
9.0' BUILDING ENCROACHMENT OVER SETBACK LINE

DRAWING NOTES:

1) ALL UTILITIES ARE SHOWN BY VISUAL INSPECTION OF THE SITE OR MARKINGS ON THE GROUND BY OTHERS.
2) BEARING CONTROL IS BASED ON DEEDS PROVIDED IN COMMITTMENT
3) LOCATIONS OF UTILITIES ARE SHOWN HEREON BY OBSERVED EVIDENCE AND APPEAR TO ENTER THE PROPERTY THROUGH EITHER THE PUBLIC RIGHTS OF WAY AND/OR THROUGH EXISTING EASEMENTS INCLUDING WATER, NATURAL GAS, ELECTRIC, SEWER SANITARY SEWER, AND TELECOMMUNICATIONS

ZONING

EXISTING BUILDINGS & PARKING LOTS
M-2 HEAVY INDUSTRIAL DISTRICT
FRONT SETBACK=15'
SIDE SETBACK= 15'
REAR SETBACK= 10'
BUILDING HEIGHT= 45'

FLOOD DATA

COMMUNITY PANEL NO. : 26125C0507F
ZONE X
0507F
EFFECTIVE DATE: 09/26/2006

The undersigned hereby certifies, as of MAY 1, 2014 to
FIRST AMERICAN TITLE, NEW IRG, LLC
and its successors and assigns as follows:

a) I have surveyed, on the ground in accordance with the minimum Standard Detail Requirements for ALTA/ASCM Land Title Surveys as jointly established and adopted by the American Land Title Association and American Congress on Surveying & Mapping and National Society of Professional Surveyors, 2011 and this meets the requirements for an urban survey as defined therein, the property legally described hereof and that said legal description is correct, complete and accurate.

b) The boundaries of the property as depicted in the plat were established by actual field measurements and the pins, monuments or other markers were set or found as shown thereon.

c) To the best of my knowledge and in my professional opinion this plat of survey is true and correct in all respects.

d) The size, dimensions and locations of all of the boundaries of the property, buildings, structures, fences and party walls and other improvements, recorded and visible unrecorded easements, streets, signs, drainage ditches, roads, railroads, streams, means of public access, rights of way, utility lines and connections, and set-back lines which affect the property are correctly and accurately shown hereon.

e) All encroachments, overlaps or overhangs on easements, adjoining property, streets or alleys by any of said buildings, structures or other improvements, are as shown on the drawing. There are no encroachment, there are no overlaps or overhangs on said property by buildings, structures or other improvements situated on adjoining property except as shown.

f) This plat correctly shows (i) the courses and measured distances of the exterior property lines of the property and any easements located on or affecting the property; (ii) the scale, north direction, the beginning point and point of reference from which the property is measured, the width of the streets on which the said property abuts, the lot and block number shown on any map or plat to which reference is made in the legal description of the property, together with the recording references for said map or plat; (iii) the address of the property; (iv) the location and number of parking spaces and the total area of the property in acres and square feet and any easements located on or affecting the property; (v) the dimensions of all buildings on the property at ground surface level and the distance therefrom to the nearest facing exterior property lines; and (vi) names of adjoining owners of platted lands.

g) The propertylines shown as surveyed and described on the plat is contiguous along its entire boundaries and is not enclosed within the perimeters thereof.

h) The dimensions shown hereon are expressed in feet and decimal part thereof.

i) All bearings are related to an assumed meridian and are intended to indicate angles only.

j) All parcels are contiguous with each other and there are no gaps or gores between or among parcels.

k) A physical examination of the property reveals no apparent use of the property for pathways, driveways or roadways for which there are not recorded easements, nor for solid waste dump, sump, sanitary land fill, drilling, excavating, building, street or sidewalk construction or repairs, or any changes in street right-of-way lines, either completed or proposed, nor does it serve adjoining property for drainage, ingress, egress or any other purpose.

l) The property has direct access to a dedicated, complete and accepted public street maintained by governmental authority know as SOUTH BOULEVARD AND RING ROAD

m) The property does NOT lie within a flood plain.

n) There are no encroachments, no overlaps, gaps, easements, streets, roads, rights of way, set-back lines or improvements which affect the property which are not shown hereon.

o) A physical examination of the property does not reveal evidence of cemeteries.

p) There are no parking restrictions on said property. There are approximately 2,398 total striped parking spaces (15 handicapped) on said property.

q) The property is zoned M-2 HEAVY INDUSTIRIAL DISTRICT

r) No portion of the property lies within a federally designated wetlands protection area as determined by the maps of the Army Corps of Engineers, nor within any designated flood hazard area as determined by the U.S. Department of Housing and Urban Development, the Federal Emergency Management Agency or other federal, state or local government entity.

s) No observable evidence of earth moving work, no building construction or building additions within recent months.

ALTA/ACSM LAND TITLE SURVEY

FIRST AMERICAN TITLE, NEW IRG, LLC
Commitment No. NCS-633987-MICH

I, the undersigned, being a duly licensed and qualified surveyor in and for the State of Michigan, do hereby certify to First American Title Insurance Company, its successors and assigns , as their interest may appear:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 6 (b), 7, 8, 9, 10 (where party walls are a factor), 11(a), 13, 14, 16, 17, 18,19 & 20 (if applicable) of Table A thereof. The field work was completed on April 8, 2014. Date of title commiment February 7, 2014.

STATE OF MICHIGAN RAYMOND J. MC COY 4001021270 REGISTERED PROFESSIONAL SURVEYOR

RAYMOND J. McCOY 5/15/14
RAYMOND J. McCOY LICENSE #4001021270

State of Michigan
Date of survey: APRIL 8, 2014

LEESMAN ENGINEERING & ASSOC.
ENGINEERING, SURVEYING, PLANNING
EMAIL@LEESMANENGINEERING.COM
2720 TOPIC HILLS, CINCINNATI, OHIO 45248 513/417-0420

DRAWING DATA	REVISION DATES	
SCALE:1"=100'		
DRAWN BY:TMD		
CHECKED BY: R.M.		
DWG. No.: NCS-633987-MICH		

SHEET 1 OF 1

EXHIBIT 3

DESCRIPTION OF ALLOWABLE USES

Non-residential Land Use: This land use is characterized by any use which is not residential in nature and is primarily characterized by industrial and commercial uses. Industrial uses typically involve manufacturing operations engaged in processing and manufacturing of materials or products. Other examples of industrial uses are utility companies, industrial research and development, and petroleum bulk storage. Commercial uses include any business or income-producing use such as commercial warehouses, lumber yards, retail gas stations, auto dealerships and service stations, as well as office buildings, banks, and medical/dental offices (not including hospitals). Commercial uses also include retail businesses whose principal activity is the sale of food or merchandise within an enclosed building and personal service establishments which perform services indoors such as health clubs, barber/beauty salons, photographic studios, etc.

Any residential use is specifically prohibited from the non-residential land use category. This would include the primary use of the property for human habitation and includes structures such as single family dwellings, multiple family structures, mobile homes, condominiums, and apartment buildings. Residential use is also characterized by any use which is intended to house, educate, or provide care for children, the elderly, the infirm, or other sensitive populations, and therefore could include day care centers, educational facilities, hospitals, elder care facilities, and nursing homes. The use of any accessory building or portion of an existing building as a dwelling unit permitted for a proprietor or storekeeper and their families, located in the same building as their place of occupation, or for a watchman or caretaker is also prohibited. Any authority that allows for residential use of the Property as a legal non-conforming use is also restricted per the prohibitions contained in this restrictive covenant.

EXHIBIT 4

LEGAL DESCRIPTION AND DRAWING ILLUSTRATING DESCRIPTION OF VAPOR INTRUSION RESTRICTION AREAS

AOI 50 DUCO STRORES VAPOR INTRUSION RESTRICITON AREA (EXHIBIT 4 FIGURE 1)

A Parcel of land situated in the Northwest 1/4 of Section 3, Town 2 South, Range 10 East, City of Pontiac, Oakland County, Michigan, being part of Lots 1 & 5, "Assessor's Plat No. 110", as recorded in Liber 52 of Plats, page 26 of Oakland County records, more particularly described as: commencing at the Northwest property-controlling corner of said Section 3 (said point being N 87°23'33" W, 2483.50 feet (measured) from the North 1/4 property-controlling corner of said section 3): thence S 87°23"00" E, 1049.50 feet; thence S 02°36'20" W, 60.00 feet to the intersection of the Southerly right-of-way line of South Blvd. and the Westerly right-of-way line of Ring Road (50 feet wide); thence S 02°36'20" W, 1271.62 feet; thence leaving said right-of-way line, N 87°19'58" W, 170.97 feet to the Point of Beginning; thence S 02°40'02" W, 375.81 feet; thence N 87°19'58" W, 415.15 feet; thence N 02°40'02" E, 375.81 feet; thence S 87°19'58" E, 415.15 to the Point of Beginning. Containing 3.58 acres more or less.

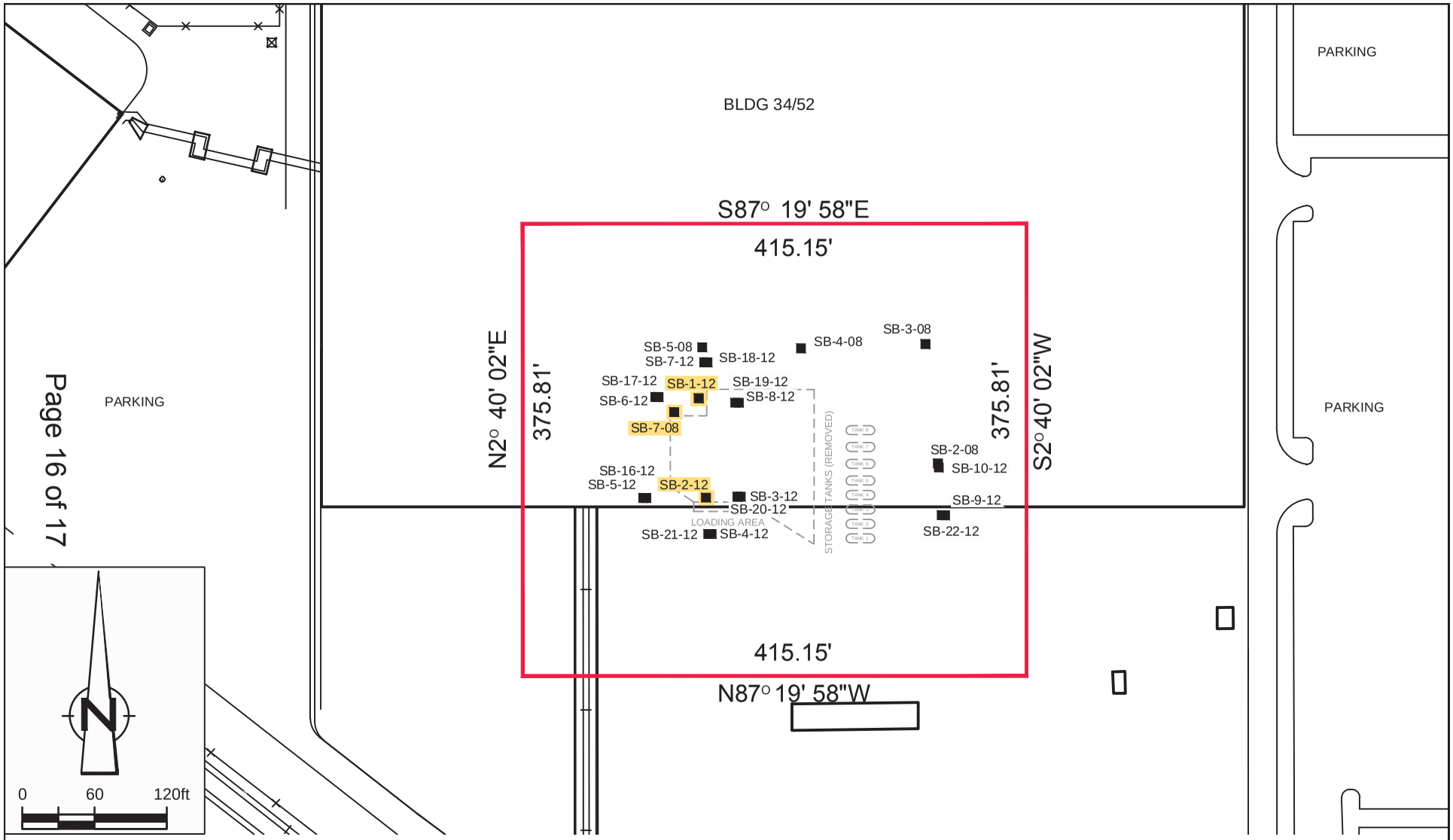
pt 19-03-101-003

AOI 53 – BUILDING 33 VAPOR INTRUSION RESTRICTION AREA (EXHIBIT 4 FIGURE 2)

A Parcel of land situated in the Northwest 1/4 of Section 3, Town 2 South, Range 10 East, City of Pontiac, Oakland County, Michigan, being part of Lots 1 & 5, "Assessor's Plat No. 110", as recorded in Liber 52 of Plats, page 26 of Oakland County records, more particularly described as: commencing at the Northwest property-controlling corner of said Section 3 (said point being N 87°23'33" W, 2483.50 feet (measured) from the North 1/4 property-controlling corner of said Section 3): thence S 87°23"00" E, 1049.50 feet; thence S 02°36'20" W, 60.00 feet to the intersection of the Southerly right-of-way line of South Blvd. And the Westerly right-of-way line of Ring Road (50 feet wide) to the Point of Beginning; thence continuing along said Westerly right-of-way line S 02°36'20" W, 646.73 feet; thence N 87°23'00" W, 665.89 feet; thence N 02°36'19" E, 646.73 feet to the Southerly right-of-way line of South Blvd; thence along said Southerly right-of-way line S 87°23"00" E, 665.89 feet to the Point of Beginning. Containing 9.88 acres more or less

pt 19-03-101-003

DRAWING ILLUSTRATING DESCRIPTION OF VAPOR INTRUSION RESTRICTION AREA



Page 16 of 17

LEGEND

- APPROXIMATE AREA OF RESTRICTIVE COVENANT FOR VAPOR INTRUSION
- SOIL BORING LOCATION
- SOIL BORING WITH VOCs DETECTED ABOVE PART 201 NON-RESIDENTIAL SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA

NOTE: RESTRICTIVE COVENANT AREA WAS DERIVED BASED ON A MINIMUM DISTANCE OF 100 ft. FROM DELINEATION SOIL BORINGS WITH NO NON-RESIDENTIAL VAPOR INTRUSION EXCEEDANCES AND 100 ft. FROM FORMER USTs.

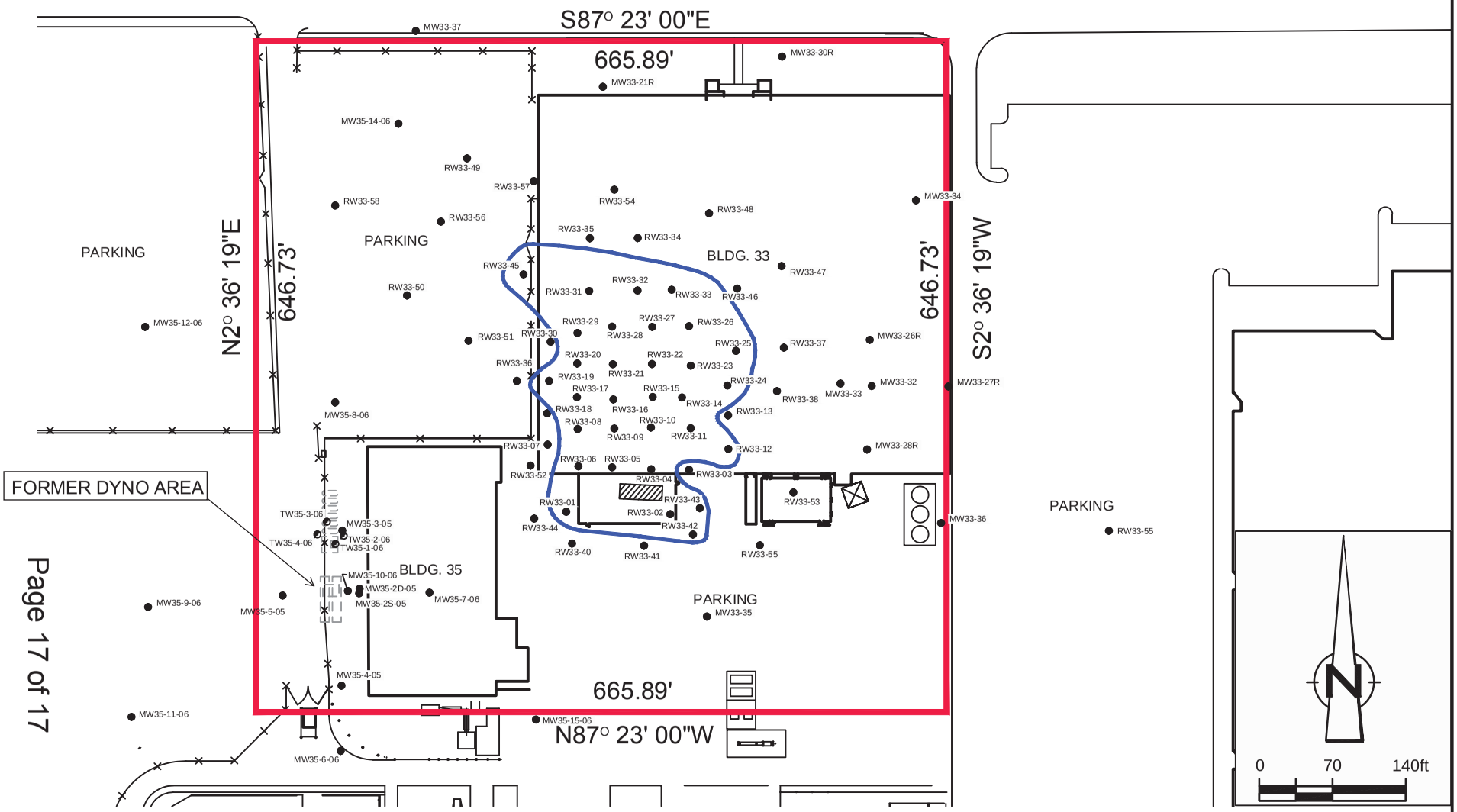
- AS PER SECTION 3.2.3 OF THE MDEQ GUIDANCE DOCUMENT FOR THE VAPOR INTRUSION PATHWAY (MAY, 2013), A 100 ft. RADIUS FROM VAPOR SOURCES IS DEFINED AS THE PRELIMINARY SCREENING AREA. AND IS THEREFORE CONSIDERED A CONSERVATIVE DISTANCE FROM DELINEATION BORINGS TO ESTABLISH THE EDGE OF THE VAPOR INTRUSION RESTRICTION AREA.

EXHIBIT 4 - FIGURE 1

AOI-50 - DUCO STORES
VAPOR INTRUSION RESTRICTION AREA
PCC-WEST
PONTIAC, MICHIGAN

07097-T10(PRES017)GN-DE001 FEB 25/2014

DRAWING ILLUSTRATING DESCRIPTION OF VAPOR INTRUSION RESTRICTION AREA



Page 17 of 17

LEGEND

APPROXIMATE AREA OF RESTRICTIVE COVENANT FOR VAPOR INTRUSION

RW33-55 EXISTING EXTRACTION/MONITORING WELL LOCATION

2004-2008 LIMIT OF IN WELL FREE PRODUCT OBSERVATIONS (FROM JAN. 13, 2010 POST-CORRECTIVE MEASURES EVALUATION REPORT FOR AOI 53 - FORMER BUILDING 33, LNAPL AREA 1)

NOTE: RESTRICTED AREA WAS DERIVED BASED ON A MINIMUM DISTANCE OF 100ft. FROM LNAPL AREA AND EXTENDING BEYOND THE FORMER DYNO TANK AREA. NO SOIL OR GROUNDWATER SAMPLE OUTSIDE THE LNAPL AREA EXCEED PART 201 NON-RESIDENTIA VAPOR INTRUSION CRITERIA.

AS PER SECTION 3.2.3 OF THE MDEQ GUIDANCE DOCUMENT FOR THE VAPOR INTRUSION PATHWAY (MAY, 2013), A 100 ft. RADIUS FROM VAPOR SOURCES IS DEFINED AS THE PRELIMINARY SCREENING AREA. AND IS THEREFORE CONSIDERED A CONSERVATIVE DISTANCE FROM DELINEATION BORINGS TO ESTABLISH THE EDGE OF THE VAPOR INTRUSION RESTRICTION AREA.

EXHIBIT 4 - FIGURE 2

AOI-53 - BUILDING 33
VAPOR INTRUSION RESTRICTION AREA
PONTIAC, MICHIGAN

07097-T10(PRES017)GN-DE002 FEB 25/2014

Appendix D

November 28, 2012 RCRA Corrective Action - Releases associated with AOI 50 and AOI 53A

Appendix D

November 28, 2012 RCRA Corrective Action - Releases associated with AOI 50 and AOI 53A

CONESTOGA-ROVERS
& ASSOCIATES

14496 Sheldon Road, Suite 200, Plymouth, MI 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

November 28, 2012

Reference No. 007097
Via email only (pdf)

Mr. Peter Ramanauskas
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd., LU-9J
Chicago, Illinois 60604-3590

Dear Mr. Ramanauskas:

Re: RCRA Corrective Action - Releases associated with AOI 50 and an UST near AOI 53
Pontiac Centerpoint Campus; Pontiac, Oakland County, Michigan
U.S. EPA No. MID 005 356 902

This letter was prepared by Conestoga-Rovers & Associates, Inc. (CRA), on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, to provide the U.S. Environmental Protection Agency (EPA) with data related to the investigation of the releases associated with the AOI 50 (DUCO Stores) and an UST near AOI 53. The ultimate goal is to have the EPA include both these AOIs in a facility-wide Resource Conservation and Recovery Act (RCRA) Corrective Action (CA) Complete with Controls (CACC) determination. It is noted that in the Michigan Department of Environmental Quality (MDEQ) Underground Storage Tank Program there are confirmed releases numbered C-0235-90, C-0776-90, and C-1831-91 related to AOI 50 and C-0014-12 related to AOI 53. Per communications among EPA, MDEQ, and RACER, it is understood that MDEQ will "close" the release numbers upon EPA approval of a CACC that includes AOI 50 and the release from the UST near AOI 53. See Figure 1 for a Site location map of the Pontiac Centerpoint Campus. See Figure 2 for a Site map of PCC-West showing locations of the two release areas.

1.0 BACKGROUND

In 1998, GM began RCRA Corrective Action activities at the Pontiac Centerpoint Campus (PCC) U.S. EPA No. MID 005 356 902 under an EPA Consent Order. RACER's Pontiac West property is a portion of PCC. The EPA issued a Final Decision in 2006 for the facility under the RCRA Corrective Action program identifying corrective measures for the release at DUCO Stores would be addressed under the closure requirements of Michigan Act 451, Part 213. General Motors (GM) undertook various actions to investigate and remediate the releases at DUCO Stores under Michigan Act 451, Part 213 requirements. In October 2010, A Leaking Underground Storage Tank Closure Report (Closure Report) for DUCO Stores (confirmed releases C-0235-90, C-0776-90, C-1831-91) was submitted to the Michigan Department of Environmental Quality (MDEQ). In letters dated April 20, 2011 and June 20, 2011, the MDEQ completed an audit of corrective actions to the Closure Report.

Equal
Employment Opportunity
Employer

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN

Worldwide Engineering, Environmental, Construction, and IT Services

In an email dated March 14, 2012, RACER confirmed that the EPA and MDEQ agreed to address the confirmed releases associated with DUCO Stores through the RCRA Corrective Action process. On February 10, 2012, CRA submitted a letter to the EPA addressing the comments from the MDEQ audit of corrective actions. In response to the February 10, 2012 letter, the EPA requested an investigation of chlorinated volatile organic compound (VOCs) impacts located west of the former UST excavation area in the former Hazardous Material Handling Storage Pad (hazardous pad) and VOC impacts located east of the former UST footprint directly across from SB-6-08 and SB-1-08.

In February 2012, two 12,000 gallon USTs were removed and impacted pea gravel was encountered near the fill-port side of the gasoline UST. A confirmed release (C-0014-12) was reported to the MDEQ on February 24, 2012. On April 11, 2012, RACER requested CRA to complete a scope of work to investigate a confirmed release (C-0014-12) associated with an UST near AOI 53 through the RCRA Corrective Action process. A scope of work to investigate the VOC impacts associated with DUCO Stores and a confirmed release associated with recently removed USTs near AOI 53 was provided to the EPA on April 16, 2012 and approved via email on June 8, 2012. Prior to field work, an updated Quality Assurance Project Plan (QAPP) dated June 20, 2012 was signed by the EPA on July 10, 2012 and July 12, 2012.

2.0 UST INVESTIGATION NEAR AOI 53

A field investigation was conducted on August 1, 2012 to collect soil and groundwater samples to confirm impacts were removed during the UST removal activities. See Figure 3 for a Site map with soil boring locations associated with the investigation near AOI 53. See Tables 1 and 2 for soil and groundwater analytical results compared against Part 201 Cleanup Criteria. See Attachment 1 for the soil boring logs near AOI 53.

Investigation:

Five soil borings were installed utilizing Direct Push technology in and around the perimeter of the former UST basin. Soil borings were installed to the north (SB-14-12), south (SB-12-12), east (SB-13-12) and west (SB-11-12) of the UST excavation area to collect sidewall samples and delineate impacts. One soil sample was collected from each soil boring at a depth interval of 6 to 8 feet (ft) below ground surface (bgs) to represent the middle of the former sidewall. Also, one soil boring (SB-15-12) was installed in the middle of the former UST basin and a soil sample was collected from 4 to 6 ft bgs to assess the backfill material.

One soil boring (SB-12-12 located in the down gradient direction) was converted into a temporary monitoring well to assess potential impact to groundwater. As specified in the work plan, a soil boring was completed within the tank basin until refusal was encountered at the tank concrete hold-down pad (12 ft bgs) and converted into a temporary monitoring well (screened from approximately 7 to 12 ft bgs). The well did not produce groundwater; therefore, no sample was collected. The temporary monitoring wells were constructed using a 1-inch diameter, 5-foot long, machine slotted 0.010-inch, polyvinyl chloride (PVC) well screens threaded to a 1-inch diameter PVC riser extending above the ground surface. Upon completion, the temporary monitoring wells were developed (when possible) to a generally silt free condition. The well associated with SB-12-12 was sampled using a peristaltic pump and low flow sampling techniques. After sampling from temporary monitoring well located at SB-12-12, the wells were removed and backfilled with bentonite.

Results:

Soil and groundwater samples were collected in laboratory supplied containers for analysis at TestAmerica Laboratories, Inc. (TestAmerica) for unleaded gasoline VOC parameters. Analytical results indicated concentrations of soil and groundwater samples were below MDEQ Part 201 Cleanup Criteria except methlyene chloride. Methlyene chloride was detected in soil samples collected from SB-11-12 and SB-15-12. The detections were flagged to indicate a laboratory contaminate in the blank sample. It is likely the elevated results of the methlyene chloride are a result of laboratory contaminants and not impacts from the former gasoline UST.

Conclusion:

Based on the analytical results from confirmatory soil and groundwater samples, CRA, on behalf of RACER, recommends no further action with respect to the subject release.

3.0 INVESTIGATION AT DUCO STORES (AOI 50)

On July 30, 31 and August 1, 2012, a field investigation was completed to address chlorinated VOC impacts located west of the former UST basin in the former hazardous waste storage pad location and VOC impacts located east of the former UST footprint directly across from SB-6-08 and SB-1-08. During the investigation, seven soil samples were put on hold pending analysis. The samples exceeded their hold time and the locations were re-sampled on October 2, 2012. See Figure 4 for a Site map with soil boring locations associated with the DUCO Stores investigation. See Figure 5 for a Site map with soil analytical results. See Table 3 for soil analytical results compared against Part 201 Cleanup Criteria. See Attachment 2 for the soil boring logs associated with DUCO Stores.

Investigation:

On July 30, 31 and August 1, 2012, ten soil borings were installed utilizing Direct Push technology. Soil samples were collected from eight soil borings (SB-1-10 through SB-8-12) to address historic chlorinated VOC impacts near the former hazardous pad. In addition, soil samples were collected from two soil borings (SB-9-12 and SB-10-12) installed directly east of SB-6-08 and SB-1-08 to address gasoline VOC impacts. During the investigation, field evidence of impact was identified at soil borings SB-4-12, SB-5-12 and SB-9-12 and an additional soil sample was collected at each boring to vertically delineate potential impacts. Limited groundwater was encountered at each soil boring except SB-7-12 and SB-10-12; however, no groundwater was collected. Based on the thickness of the water-bearing unit (typically less than 2 feet), it was unlikely to yield enough groundwater to collect a sample.

Samples were shipped for laboratory analysis of TCL VOCs and gasoline VOC parameters. Six soil samples from SB-3-12 through SB-8-12 were put on hold pending analysis of soil samples collected from SB-1-12 through SB-2-12. Analytical results of SB-1-12 and SB-2-12 indicated the need to analyze samples collected from soil borings SB-3-12 through SB-8-12; however, the samples exceeded hold time and could not be analyzed. In addition, a soil sample collected from SB-9-12 was mistakenly put on hold and also exceeded its hold time.

On October 2, 2012, CRA re-mobilized to collect soil samples from boring locations that missed hold times. Seven soil borings (SB-16-12 through SB-22-12) were installed utilizing Direct Push technology within 1 foot of soil borings SB-3-12 through SB-9-12. Soil samples were collected from the soil borings from the same intervals as the previous investigation. The soil samples were shipped for laboratory analysis of TCL VOCs and gasoline VOCs.

Results:

Soil samples were collected in laboratory supplied containers for analysis at TestAmerica for TCL VOCs and gasoline VOC parameters. Analytical results indicated concentrations of soil samples were below MDEQ Part 201 Cleanup Criteria except the following:

- 1,1,1-Trichloroethane at SB-1-12 (10 to 12 ft bgs) exceeded residential drinking water protection criteria (RDWPC), non-residential drinking water protection criteria (NRDWPC) and groundwater surface water interface criteria (GSI)
- 1,1-Dichloroethene at SB-16-12 (6 to 8 ft bgs) exceeded RDWPC, NRDWPC and residential soil volatilization to indoor air inhalation criteria (RSVIAIC)

- Tetrachloroethene at SB-2-12 (4 to 6 ft bgs) and SB-21-12 (4.5 to 6.5 ft bgs) exceeded RDWPC and NRDWPC
- Trichloroethene at SB-1-12 (10 to 12 ft bgs) exceeded RDWPC, NRDWPC, GSI, RSVIAIC, non-residential soil volatilization to indoor air inhalation criteria (NRSVIAIC)
- Trichloroethene at SB-2-12 (4 to 6 ft bgs) exceeded RDWPC, NRDWPC, RSVIAIC and NRSVIAIC
- Trichloroethene at SB-16-12 (2 to 4 ft bgs) and SB-17-12 (10 to 12 ft bgs) exceeded RDWPC and NRDWPC
- Vinyl chloride at SB-22-12 (10 to 12 ft bgs) exceeded RDWPC and NRDWPC

See Attachment 3 for the laboratory analytical reports.

Conclusion:

As part of the RCRA Corrective Action for the Facility, institutional controls to restrict land use to industrial/commercial uses and to restrict resource use to prevent shallow groundwater from being used for drinking water have been implemented throughout the majority of the Facility, including the Site. The implementation of these resource use restrictions was approved by the USEPA on April 21, 2006 as part of the Corrective Measures Proposal for the Facility.

An additional restrictive covenant (RC) was completed specific to DUCO Stores (Confirmed Releases C-0235-90, C-0776-90 and C-1831-91) in compliance with Michigan Act 451, Part 213 and is recorded with Oakland County as Liber 42390, Pages 712-731. The RC prohibits the construction of wells or other devices used to extract groundwater for consumption, irrigation or any other purpose except to evaluate groundwater quality, to remediate or short–term dewatering.

Based on the restrictions above, MDEQ Part 201 residential cleanup criteria and non-residential drinking water protection criterion are not applicable. Therefore, chlorinated VOC impacts are delineated to the north (SB-18-12), south (SB-21-12), east (up to the former UST excavation basin) and west (SB16-12 and SB-6-12). Soil from surface to 10 ft bgs has not been delineated at SB-1-12 and SB-2-12; however, no evidence of impact was encountered during the installation of the soil borings.

Vinyl chloride was encountered at SB-10-12; however, based on the site restrictions described above, vinyl chloride impacts are not above applicable criteria.

Recommendations:

Based on the uncertainty of the fate of Building 34/53, an RC is recommended for the impacted area to require vapor barriers and/or vapor intrusion assessments prior to occupying that part of the building or in the event the building is demolished, prior to construction of any new building. See Figure 6 for the approximate area of the restrictive covenant for vapor intrusion.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

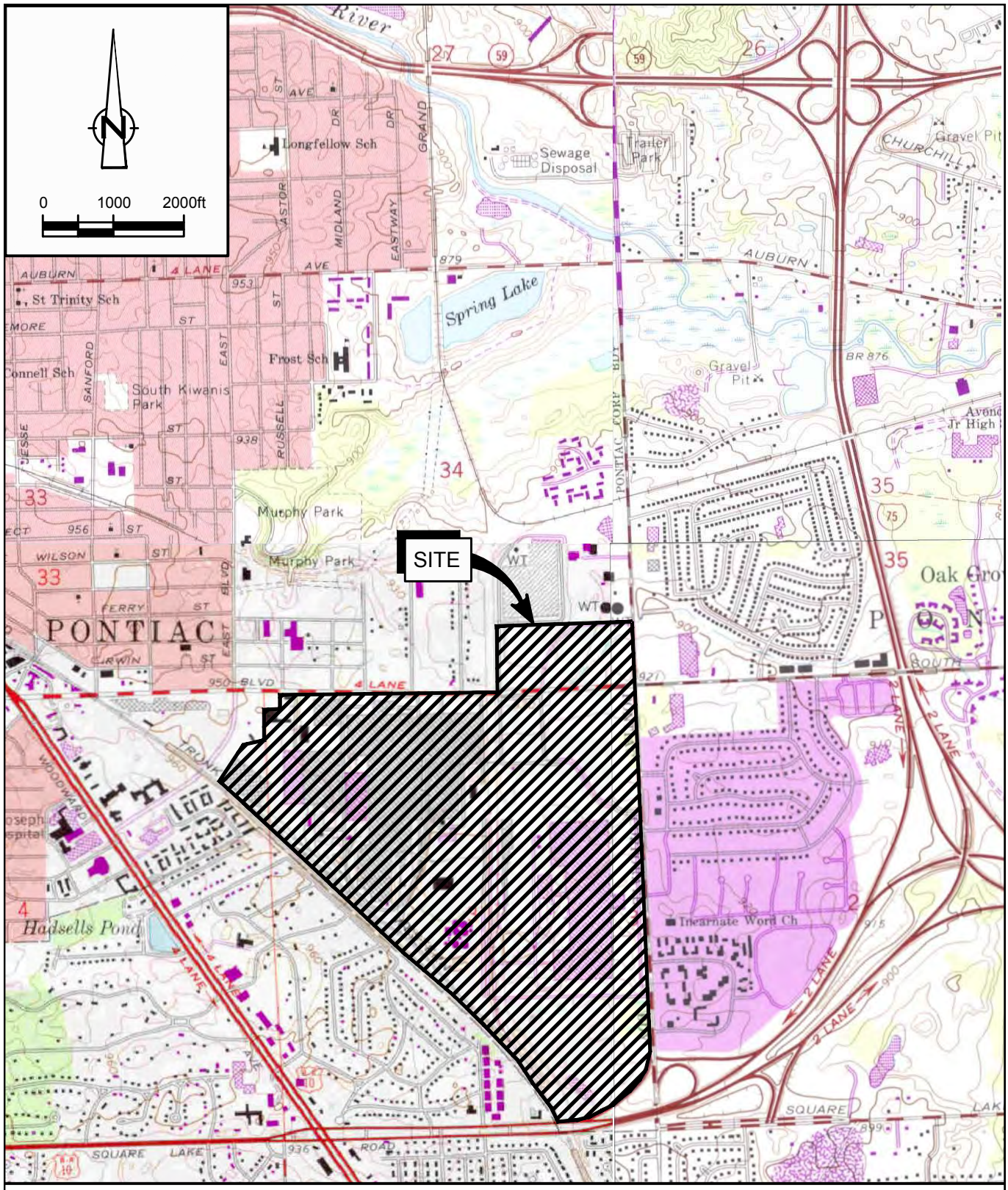
Thomas Kinney

Thomas M. Kinney, CP

TMK/MJC/ds/2/Det.
Encl.

cc: Leonard Lipinski, MDEQ
Grant Trigger, RACER
Dave Favero, RACER

FIGURES

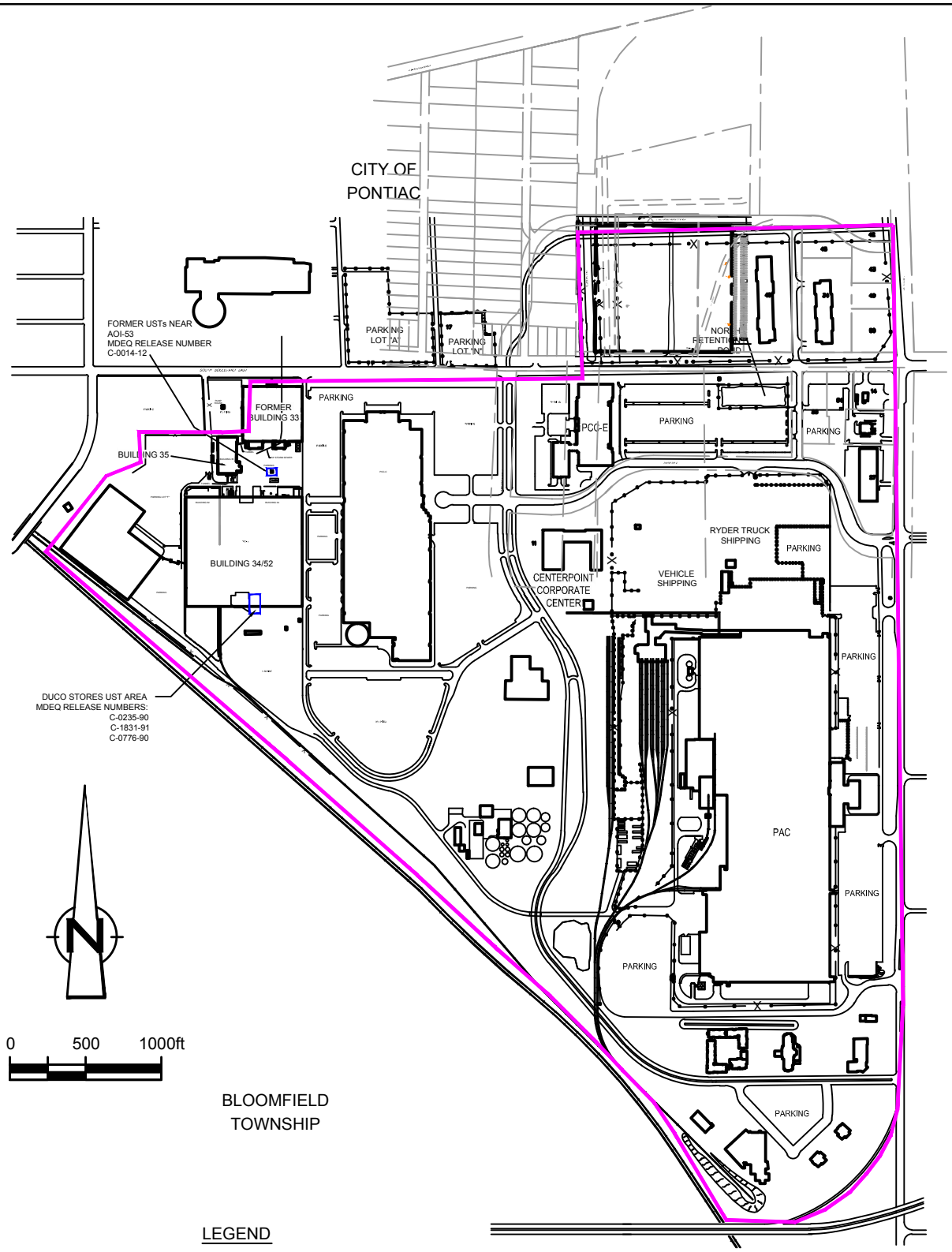


SOURCE USGS UADRANGLE MAPS
BIRMINGHAM, ROCHESTER, PONTIAC NORTH,
AND PONTIAC SOUTH, MICHIGAN

figure 1

SITE LOCATION
PONTIAC CENTERPOINT CAMPUS
Pontiac, Michigan

07097-T10(RAMI002)GN-DE001 NOV 21/2012



LEGEND

- BUILDING OUTLINE
- FORMER BUILDING LOCATION
- FENCE
- RAIL SPUR
- PCC-WEST PROPERTY BOUNDARY

figure 2

FACILITY PLAN

FORMER USTs NEAR AOI-53, AOI-50 - DUCO STORES

PCC-WEST

Pontiac, Michigan

07097-T10(RAMI002)GN-DE005 NOV 28/2012

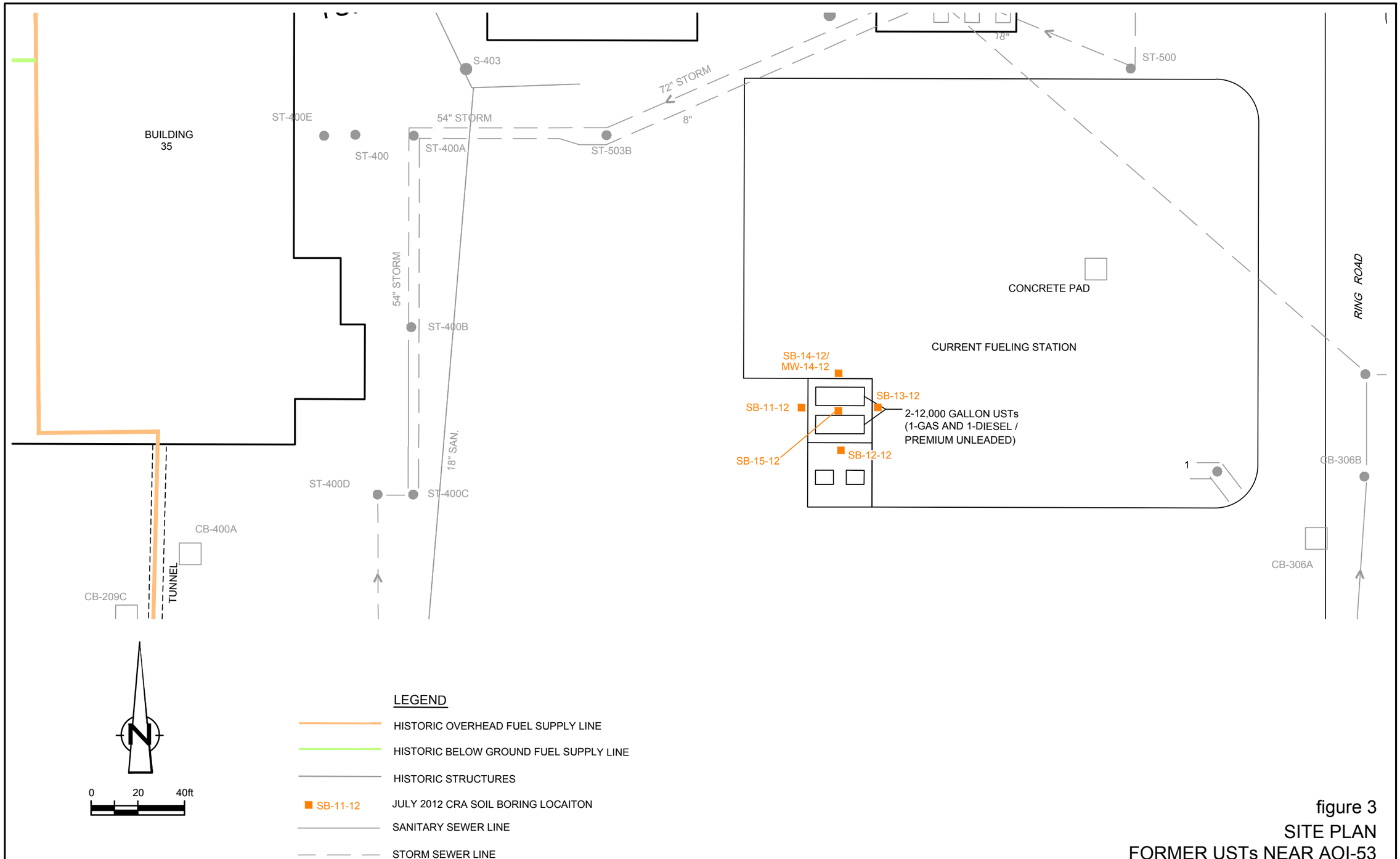


figure 3
SITE PLAN
FORMER USTs NEAR AOI-53
PCC-WEST
Pontiac, Michigan

07097-T10(RAMI002)GN-DE003 NOV 21/2012

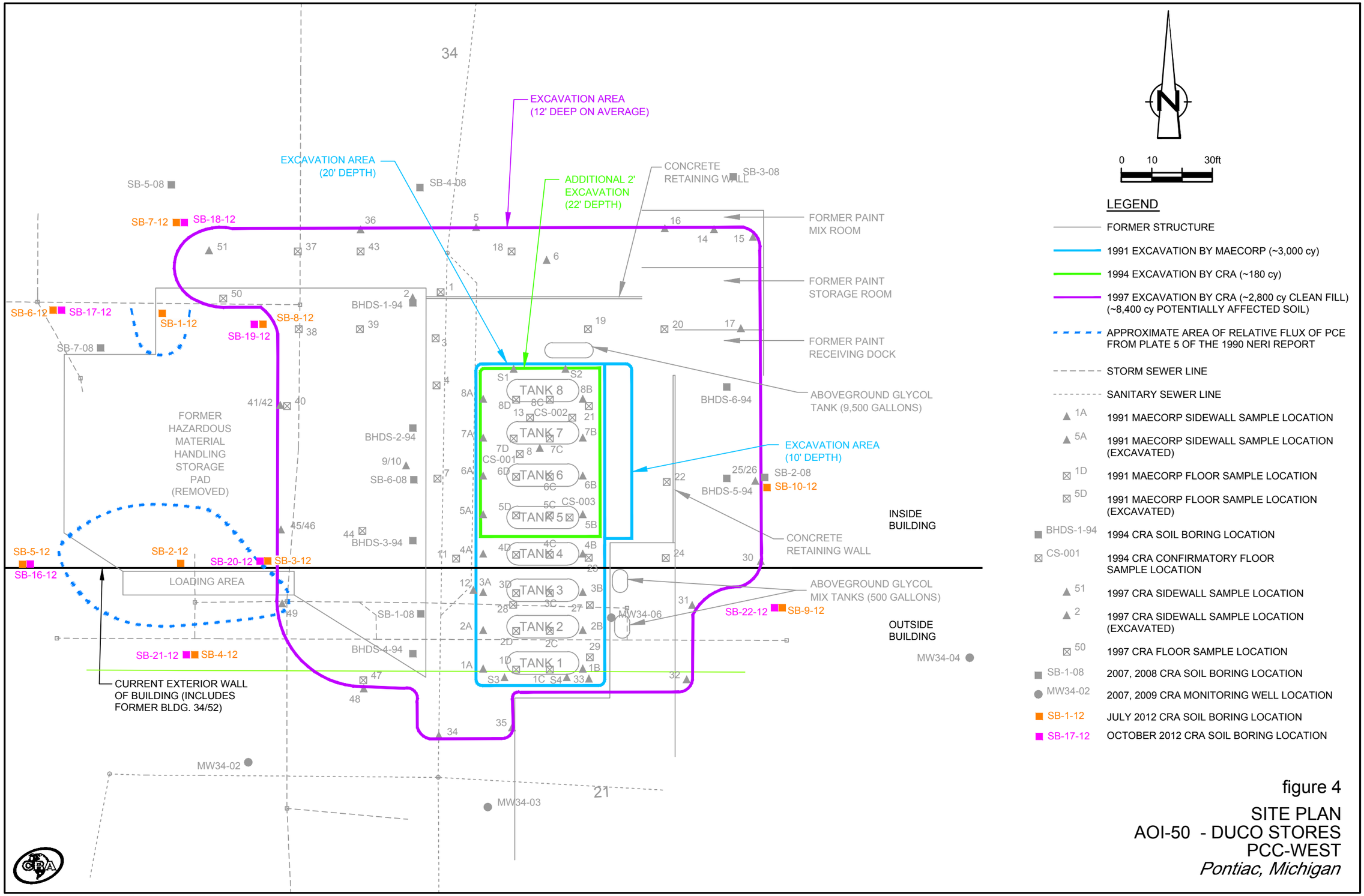
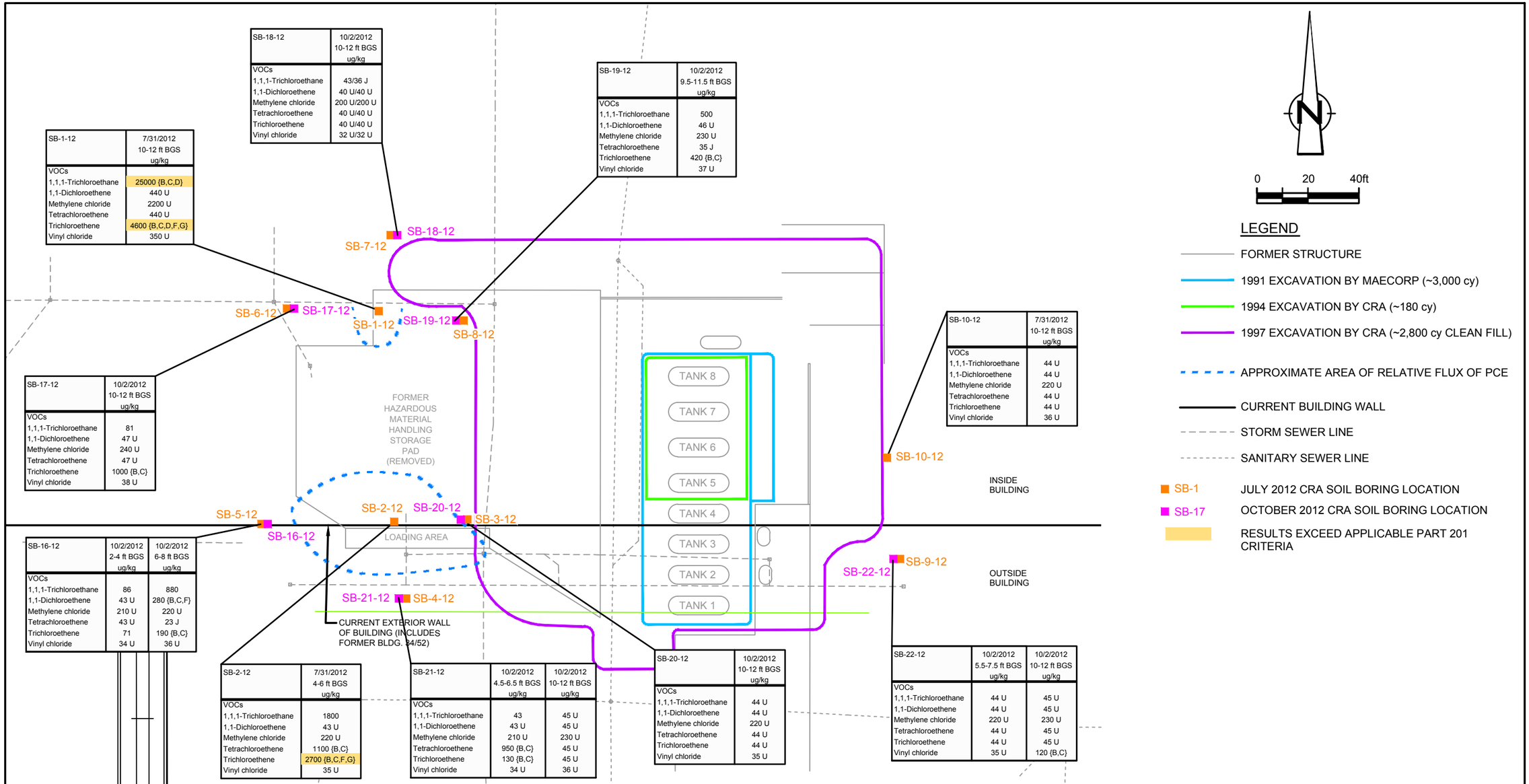


figure 4

SITE PLAN
AOI-50 - DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T10(RAMI002)GN-DE002 NOV 21/2012



SB-18-12	10/2/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	43/36 J
1,1-Dichloroethene	40 U/40 U
Methylene chloride	200 U/200 U
Tetrachloroethene	40 U/40 U
Trichloroethene	40 U/40 U
Vinyl chloride	32 U/32 U

SB-19-12	10/2/2012 9.5-11.5 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	500
1,1-Dichloroethene	46 U
Methylene chloride	230 U
Tetrachloroethene	35 J
Trichloroethene	420 {B,C}
Vinyl chloride	37 U

SB-1-12	7/31/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	25000 {B,C,D}
1,1-Dichloroethene	440 U
Methylene chloride	2200 U
Tetrachloroethene	440 U
Trichloroethene	4600 {B,C,D,F,G}
Vinyl chloride	350 U

SB-17-12	10/2/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	81
1,1-Dichloroethene	47 U
Methylene chloride	240 U
Tetrachloroethene	47 U
Trichloroethene	1000 {B,C}
Vinyl chloride	38 U

SB-10-12	7/31/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	44 U
1,1-Dichloroethene	44 U
Methylene chloride	220 U
Tetrachloroethene	44 U
Trichloroethene	44 U
Vinyl chloride	36 U

SB-16-12	10/2/2012 2-4 ft BGS ug/kg	10/2/2012 6-8 ft BGS ug/kg
VOCs		
1,1,1-Trichloroethane	86	880
1,1-Dichloroethene	43 U	280 {B,C,F}
Methylene chloride	210 U	220 U
Tetrachloroethene	43 U	23 J
Trichloroethene	71	190 {B,C}
Vinyl chloride	34 U	36 U

SB-2-12	7/31/2012 4-6 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	1800
1,1-Dichloroethene	43 U
Methylene chloride	220 U
Tetrachloroethene	1100 {B,C}
Trichloroethene	2700 {B,C,F,G}
Vinyl chloride	35 U

SB-21-12	10/2/2012 4.5-6.5 ft BGS ug/kg	10/2/2012 10-12 ft BGS ug/kg
VOCs		
1,1,1-Trichloroethane	43	45 U
1,1-Dichloroethene	43 U	45 U
Methylene chloride	210 U	230 U
Tetrachloroethene	950 {B,C}	45 U
Trichloroethene	130 {B,C}	45 U
Vinyl chloride	34 U	36 U

SB-20-12	10/2/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	44 U
1,1-Dichloroethene	44 U
Methylene chloride	220 U
Tetrachloroethene	44 U
Trichloroethene	44 U
Vinyl chloride	35 U

SB-22-12	10/2/2012 5.5-7.5 ft BGS ug/kg	10/2/2012 10-12 ft BGS ug/kg
VOCs		
1,1,1-Trichloroethane	44 U	45 U
1,1-Dichloroethene	44 U	45 U
Methylene chloride	220 U	230 U
Tetrachloroethene	44 U	45 U
Trichloroethene	44 U	45 U
Vinyl chloride	35 U	120 {B,C}

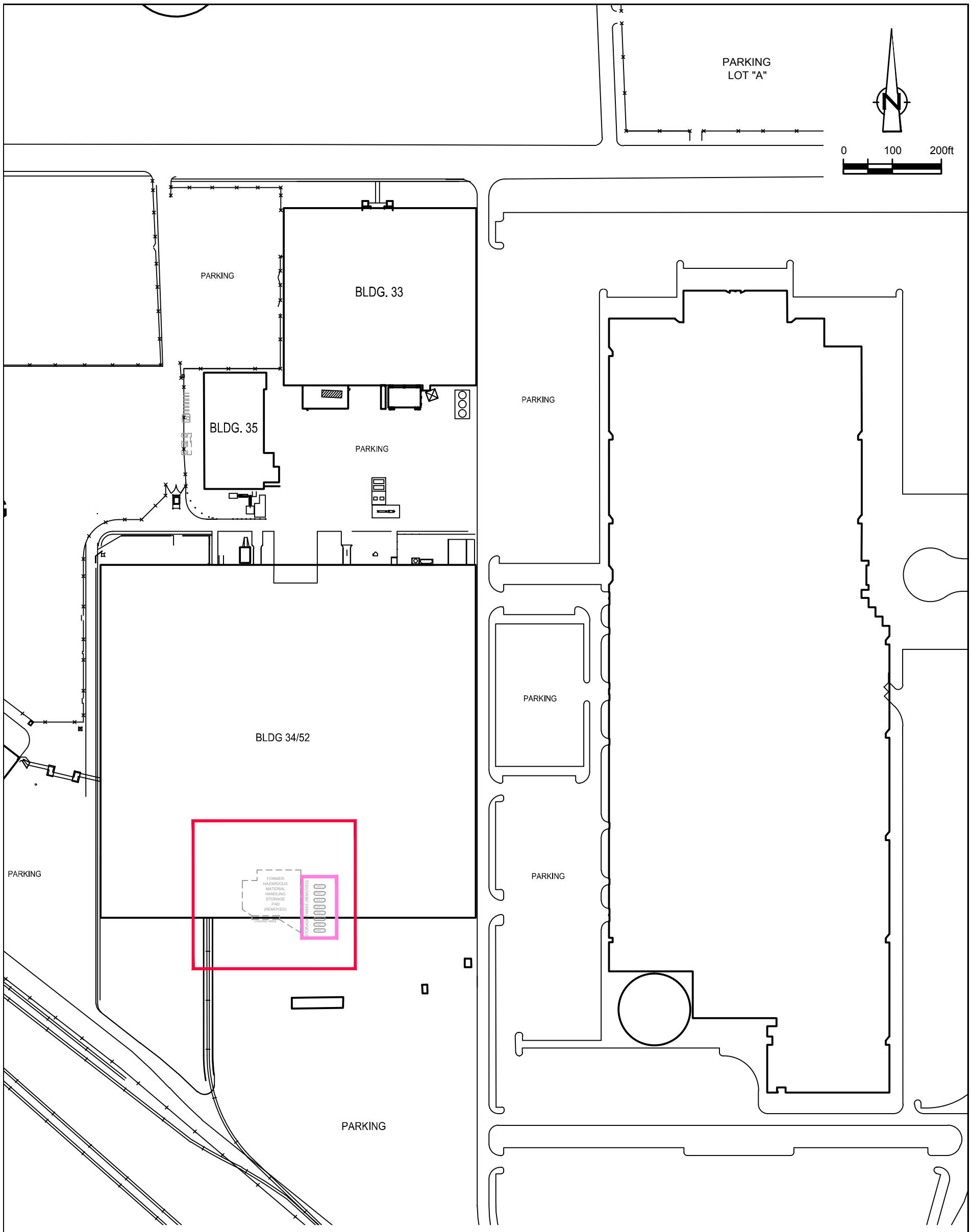
	Units	Residential Drinking Water Protection b	Non-Residential Drinking Water Protection c	Groundwater Surface Water Interface Protection d	Residential Soil Volatilization to Indoor Air Inhalation f	Non-Residential Soil Volatilization to Indoor Air Inhalation g
VOCs						
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	250000	460000
1,1-Dichloroethene	ug/kg	140	140	2600	62	330
Methylene chloride	ug/kg	100	100	30000	45000	240000
Tetrachloroethene	ug/kg	100	100	1200	11000	21000
Trichloroethene	ug/kg	100	100	4000	1000	1900
Vinyl chloride	ug/kg	40	40	260	270	2800

NA - Criteria not available or not applicable
If results are below selected background level, all other criteria are not applicable
Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.

figure 5

SOIL ANALYTICAL RESULTS
AOI-50 - DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T10(RAMI002)GN-DE004 NOV 21/2012



LEGEND

FORMER STRUCTURE

APPROXIMATE AREA OF RESTRICTIVE COVENANT FOR VAPOR INTRUSION

figure 6

APPROXIMATE AREA OF RESTRICTIVE COVENANT
AOI-50 - DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T10(RAMI002)GN-DE006 NOV 28/2012

TABLES

TABLE 1

SOIL ANALYTICAL RESULTS
FORMER USTS NEAR AOI 53
PCC-WEST
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)										
Sample Location:							*SB-11-12*	*SB-11-12*	*SB-12-12*	*SB-13-12*	*SB-14-12*	*SB-15-12*
Sample Depth:		*Residential*	*Non-Residential*	*Groundwater*	*Residential*	*Non-Residential*	*6-8 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*
Sample ID:		*Drinking Water*	*Drinking Water*	*Surface Water*	*Soil Volatilization to*	*Soil Volatilization to*	*SO-7097-073012-CB-009*	*SO-7097-073012-CB-010*	*SO-7097-073012-CB-007*	*SO-7097-073112-CB-012*	*SO-7097-073112-CB-013*	*SO-7097-073012-CB-008*
Sample Date:		*Protection*	*Protection*	*Interface Protection**	*Indoor Air Inhalation*	*Indoor Air Inhalation**	*07/30/2012*	*07/30/2012*	*07/30/2012*	*07/31/2012*	*07/31/2012*	*07/30/2012*
Sample Type:								*Duplicate*		*Duplicate*		
Parameters	*Units*	*b*	*c*	*d*	*f*	*g*						
VOCs										``		
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	250000	460000	42 U	43 U	41 U	-	-	39 U
1,1,2,2-Tetrachloroethane	ug/kg	170	700	1600 X	4300	23000	42 U	43 U	41 U	-	-	39 U
1,1,2-Trichloroethane	ug/kg	100	100	6600 X	4600	24000	42 U	43 U	41 U	-	-	39 U
1,1-Dichloroethane	ug/kg	18000	50000	15000	230000	430000	42 U	43 U	41 U	-	-	39 U
1,1-Dichloroethene	ug/kg	140	140	2600	62	330	42 U	43 U	41 U	-	-	39 U
1,2,4-Trichlorobenzene	ug/kg	4200	4200	5900 X	1100000 C	1100000 C	210 U	210 U	210 U	-	-	190 U
1,2,4-Trimethylbenzene	ug/kg	2100	2100	570	110000 C	110000 C	85 U	85 U	82 U	84 U	85 U	200
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	10 M	10 M	ID	220	1200 C	210 U	210 U	210 U	-	-	190 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	20 M	20 M	110 X	670	3600	210 U	210 U	210 U	-	-	190 U
1,2-Dichlorobenzene	ug/kg	14000	14000	280	210000 C	210000 C	85 U	85 U	82 U	-	-	78 U
1,2-Dichloroethane	ug/kg	100	100	7200 X	2100	11000	42 U	43 U	41 U	-	-	39 U
1,2-Dichloropropane	ug/kg	100	100	4600 X	4000	7400	42 U	43 U	41 U	-	-	39 U
1,3,5-Trimethylbenzene	ug/kg	1800	1800	1100	94000 C	94000 C	85 U	85 U	82 U	84 U	85 U	74 J
1,3-Dichlorobenzene	ug/kg	170	480	680	26000	48000	85 U	85 U	82 U	-	-	78 U
1,4-Dichlorobenzene	ug/kg	1700	1700	360	19000	100000	85 U	85 U	82 U	-	-	78 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	260000	760000	44000	27000000 C	27000000 C	630 U	640 U	620 U	-	-	580 U
2-Hexanone	ug/kg	20000	58000	ID	990000	1800000	2100 U	2100 U	2100 U	-	-	1900 U
2-Methylnaphthalene	ug/kg	57000	170000	4200	2700000	4900000	-	-	-	260 U	260 U	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	36000	100000	ID	2700000 C	2700000 C	2100 U	2100 U	2100 U	-	-	1900 U
Acetone	ug/kg	15000	42000	34000	110000000 C	110000000 C	630 U	640 U	170 J	-	-	580 U
Benzene	ug/kg	100	100	4000 X	1600	8400	42 U	43 U	41 U	42 U	42 U	39 U
Bromodichloromethane	ug/kg	1600 W	1600 W	ID	1200	6400	85 U	85 U	82 U	-	-	78 U
Bromoform	ug/kg	1600 W	1600 W	ID	150000	770000	85 U	85 U	82 U	-	-	78 U
Bromomethane (Methyl bromide)	ug/kg	200	580	700	860	1600	210 U	210 U	210 U	-	-	190 U
Carbon disulfide	ug/kg	16000	46000	ID	76000	140000	210 U	210 U	210 U	-	-	190 U
Carbon tetrachloride	ug/kg	100	100	900 X	190	990	42 U	43 U	41 U	-	-	39 U
Chlorobenzene	ug/kg	2000	2000	500	120000	220000	42 U	43 U	41 U	-	-	39 U
Chloroethane	ug/kg	8600	34000	22000 X	950000 C	950000 C	210 U	210 U	210 U	-	-	190 U
Chloroform (Trichloromethane)	ug/kg	1600 W	1600 W	7000	7200	38000	42 U	43 U	41 U	-	-	39 U
Chloromethane (Methyl chloride)	ug/kg	5200	22000	ID	2300	10000	210 U	210 U	210 U	-	-	190 U
cis-1,2-Dichloroethene	ug/kg	1400	1400	12000	22000	41000	42 U	43 U	41 U	-	-	39 U
cis-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	42 U	43 U	41 U	-	-	39 U
Cyclohexane	ug/kg	NA	NA	NA	NA	NA	1000 U	1000 U	990 U	-	-	930 U
Dibromochloromethane	ug/kg	1600 W	1600 W	ID	3900	21000	42 U	43 U	41 U	-	-	39 U
Dichlorodifluoromethane (CFC-12)	ug/kg	95000	270000	ID	900000	1700000	85 U	85 U	82 U	-	-	78 U
Ethylbenzene	ug/kg	1500	1500	360	87000	140000 C	42 U	43 U	41 U	42 U	42 U	19 J
Isopropyl benzene	ug/kg	91000	260000	3200	390000 C	390000 C	210 U	210 U	210 U	-	-	190 U
Methyl acetate	ug/kg	NA	NA	NA	NA	NA	1000 U	1000 U	990 U	-	-	930 U
Methyl cyclohexane	ug/kg	NA	NA	NA	NA	NA	1000 U	1000 U	990 U	-	-	930 U
Methyl tert butyl ether (MTBE)	ug/kg	800	800	140000 X	5900000 C	5900000 C	210 U	210 U	210 U	210 U	210 U	190 U
Methylene chloride	ug/kg	100	100	30000 X	45000	240000	110 JB[bc]	130 JB[bc]	94 JB	-	-	110 JB[bc]
Naphthalene	ug/kg	35000	100000	730	250000	470000	-	-	-	260 U	260 U	-
Styrene	ug/kg	2700	2700	2100 X	250000	520000 C	42 U	43 U	41 U	-	-	8.8 J
Tetrachloroethene	ug/kg	100	100	1200 X	11000	21000	42 U	43 U	41 U	-	-	39 U
Toluene	ug/kg	16000	16000	5400	250000 C	250000 C	85 U	85 U	82 U	84 U	85 U	18 J
trans-1,2-Dichloroethene	ug/kg	2000	2000	30000 X	23000	43000	42 U	43 U	41 U	-	-	39 U
trans-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	42 U	43 U	41 U	-	-	39 U
Trichloroethene	ug/kg	100	100	4000 X	1000	1900	42 U	43 U	41 U	-	-	39 U
Trichlorofluoromethane (CFC-11)	ug/kg	52000	150000		560000 C	560000 C	85 U	85 U	82 U	-	-	78 U
Trifluorotrichloroethane (Freon 113)	ug/kg	550000 C	550000 C	1700	550000 C	550000 C	210 U	210 U	210 U	-	-	190 U
Vinyl chloride	ug/kg	40	40	260 X	270	2800	34 U	34 U	33 U	-	-	31 U
Xylenes (total)	ug/kg	5600	5600	820	150000 C	150000 C	130 U	130 U	120 U	130 U	130 U	78 J

Notes:
If results are below select background level, all other citeria are not applicable
U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J The associated value is qualified as an estimated quantity.
UJ The analyte was reported or qualified as not detected however, the sample report limit is qualified as an estimated value and may be inaccurate or imprecise.
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
NA - Criteria not available or not applicable
- Not analyzed
- Indicates concentration exceeded Part 201 Cleanup Criteria
- Indicates concentration exceeded applicable Part 201 Cleanup Criteria
* - Indicates applicable Part 201 Cleanup Criteria

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
FORMER USTS NEAR AOI 53
PCC-WEST
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels:				
Sample Location:		***Residential and Non-Residential Generic Cleanup Criteria (1)***			***SB-14-12***	***SB-14-12***
Sample ID:		***Residential***	***Non-Residential***	***Groundwater***	***GW-7097-080112-CB-023***	***GW-7097-080112-CB-024***
Sample Date:		***Drinking Water***	***Drinking Water***	***Surface Water***	***08/01/2012***	***08/01/2012***
Sample Type:				***Interface****		***Duplicate***
Parameters	***Units***	***a***	***b***	***c***		
VOCs						
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	17	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	45	1.0 U	1.0 U
2-Methylnaphthalene	ug/L	260	750	19	5.0 U	5.0 U
Benzene	ug/L	5 A	5 A	200 X	1.0 U	1.0 U
Ethylbenzene	ug/L	74 E	74 E	18	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	40 E	40 E	7100 X	5.0 U	5.0 U
Naphthalene	ug/L	520	1500	11	5.0 U	5.0 U
Toluene	ug/L	790 E	790 E	270	1.0 U	1.0 U
Xylenes (total)	ug/L	280 E	280 E	41	2.0 U	2.0 U

Notes:

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.

NA - Criteria not available or not applicable

- Indicates concentration exceeded Part 201 Cleanup Criteria

- Indicates concentration exceeded applicable Part 201 Cleanup Criteria.

* - Indicates applicablePart 201 Cleanup Criteria.

TABLE 3

SOIL ANALYTICAL RESULTS
AOI 50 - DUCO STORES
PCC-WEST
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)											
Sample Location:							*SB-1-12*	*SB-2-12*	*SB-10-12*	*SB-16-12*	*SB-16-12*	*SB-17-12*	*SB-18-12*
Sample Depth:		*Residential*	*Non-Residential*	*Groundwater*	*Residential*	*Non-Residential*	*10-12 ft BGS*	*4-6 ft BGS*	*10-12 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*10-12 ft BGS*	*10-12 ft BGS*
Sample ID:		*Drinking Water*	*Drinking Water*	*Surface Water*	*Soil Volatilization to*	*Soil Volatilization to*	*SO-7097-073112-CB-019*	*SO-7097-073112-CB-018*	*SO-7097-073112-CB-021*	*S-007097-10212-MC-026*	*S-007097-10212-MC-027*	*S-007097-10212-MC-028*	*S-007097-10212-MC-029*
Sample Date:		*Protection*	*Protection*	*Interface Protection**	*Indoor Air Inhalation*	*Indoor Air Inhalation**	*07/31/2012*	*07/31/2012*	*07/31/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*
Sample Type:													
Parameters	*Units*	*b*	*c*	*d*	*f*	*g*							
VOCs													
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	250000	460000	25000[bcd]	1800	44 U	86	880	81	36 J
1,1,2,2-Tetrachloroethane	ug/kg	170	700	1600 X	4300	23000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
1,1,2-Trichloroethane	ug/kg	100	100	6600 X	4600	24000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
1,1-Dichloroethane	ug/kg	18000	50000	15000	230000	430000	11000	43 U	44 U	36 J	140	47 U	40 U
1,1-Dichloroethene	ug/kg	140	140	2600	62	330	440 U	43 U	44 U	43 U	280[bcf]	47 U	40 U
1,2,4-Trichlorobenzene	ug/kg	4200	4200	5900 X	1100000 C	1100000 C	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
1,2,4-Trimethylbenzene	ug/kg	2100	2100	570	110000 C	110000 C	180 J	87 U	89 U	77 J	18 J	95 U	81 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	10 M	10 M	ID	220	1200 C	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	20 M	20 M	110 X	670	3600	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
1,2-Dichlorobenzene	ug/kg	14000	14000	280	210000 C	210000 C	870 U	87 U	89 U	85 U	89 U	95 U	81 U
1,2-Dichloroethane	ug/kg	100	100	7200 X	2100	11000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
1,2-Dichloropropane	ug/kg	100	100	4600 X	4000	7400	440 U	43 U	44 U	43 U	44 U	47 U	40 U
1,3,5-Trimethylbenzene	ug/kg	1800	1800	1100	94000 C	94000 C	870 U	87 U	89 U	85 U	89 U	95 U	81 U
1,3-Dichlorobenzene	ug/kg	170	480	680	26000	48000	870 U	87 U	89 U	85 U	89 U	95 U	81 U
1,4-Dichlorobenzene	ug/kg	1700	1700	360	19000	100000	870 U	87 U	89 U	85 U	89 U	95 U	81 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	260000	760000	44000	27000000 C	27000000 C	6600 U	650 U	670 U	640 U	670 U	710 U	610 U
2-Hexanone	ug/kg	20000	58000	ID	990000	1800000	22000 U	2200 U	2200 U	2100 U	2200 U	2400 U	2000 U
2-Methylnaphthalene	ug/kg	57000	170000	4200	2700000	4900000	-	-	-	23 J	33 J	300 U	250 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	36000	100000	ID	2700000 C	2700000 C	22000 U	2200 U	2200 U	2100 U	2200 U	2400 U	2000 U
Acetone	ug/kg	15000	42000	34000	110000000 C	110000000 C	6600 U	650 U	670 U	640 U	670 U	710 U	610 U
Benzene	ug/kg	100	100	4000 X	1600	8400	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Bromodichloromethane	ug/kg	1600 W	1600 W	ID	1200	6400	870 U	87 U	89 U	85 U	89 U	95 U	81 U
Bromoform	ug/kg	1600 W	1600 W	ID	150000	770000	870 U	87 U	89 U	85 U	89 U	95 U	81 U
Bromomethane (Methyl bromide)	ug/kg	200	580	700	860	1600	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
Carbon disulfide	ug/kg	16000	46000	ID	76000	140000	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
Carbon tetrachloride	ug/kg	100	100	900 X	190	990	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Chlorobenzene	ug/kg	2000	2000	500	120000	220000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Chloroethane	ug/kg	8600	34000	22000 X	950000 C	950000 C	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
Chloroform (Trichloromethane)	ug/kg	1600 W	1600 W	7000	7200	38000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Chloromethane (Methyl chloride)	ug/kg	5200	22000	ID	2300	10000	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
cis-1,2-Dichloroethene	ug/kg	1400	1400	12000	22000	41000	440 U	23 J	44 U	43 U	44 U	47 U	40 U
cis-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Cyclohexane	ug/kg	NA	NA	NA	NA	NA	10000 U	1000 U	1100 U	1000 U	1100 U	1100 U	970 U
Dibromochloromethane	ug/kg	1600 W	1600 W	ID	3900	21000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Dichlorodifluoromethane (CFC-12)	ug/kg	95000	270000	ID	900000	1700000	870 U	87 U	89 U	85 U	89 U	95 U	81 U
Ethylbenzene	ug/kg	1500	1500	360	87000	140000 C	440 U	43 U	44 U	10 J	44 U	47 U	40 U
Isopropyl benzene	ug/kg	91000	260000	3200	390000 C	390000 C	2200 U	220 U	220 U	23 J	220 U	240 U	200 U
Methyl acetate	ug/kg	NA	NA	NA	NA	NA	10000 U	1000 U	1100 U	1000 U	170 J	1100 U	970 U
Methyl cyclohexane	ug/kg	NA	NA	NA	NA	NA	350 J	1000 U	1100 U	17 J	13 J	1100 U	970 U
Methyl tert butyl ether (MTBE)	ug/kg	800	800	140000 X	5900000 C	5900000 C	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
Methylene chloride	ug/kg	100	100	30000 X	45000	240000	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
Naphthalene	ug/kg	35000	100000	730	250000	470000	-	-	-	29 J	33 J	300 U	250 U
Styrene	ug/kg	2700	2700	2100 X	250000	520000 C	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Tetrachloroethene	ug/kg	100	100	1200 X	11000	21000	440 U	1100[bc]	44 U	43 U	23 J	47 U	40 U
Toluene	ug/kg	16000	16000	5400	250000 C	250000 C	870 U	87 U	89 U	85 U	25 J	95 U	81 U
trans-1,2-Dichloroethene	ug/kg	2000	2000	30000 X	23000	43000	440 U	43 U	44 U	43 U	44 U	47 U	40 U
trans-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	440 U	43 U	44 U	43 U	44 U	47 U	40 U
Trichloroethene	ug/kg	100	100	4000 X	1000	1900	4600[bcdfg]	2700[bcfg]	44 U	71	190[bc]	1000[bc]	40 U
Trichlorofluoromethane (CFC-11)	ug/kg	52000	150000		560000 C	560000 C	870 U	87 U	89 U	85 U	89 U	95 U	81 U
Trifluorotrichloroethane (Freon 113)	ug/kg	550000 C	550000 C	1700	550000 C	550000 C	2200 U	220 U	220 U	210 U	220 U	240 U	200 U
Vinyl chloride	ug/kg	40	40	260 X	270	2800	350 U	35 U	36 U	34 U	36 U	38 U	32 U
Xylenes (total)	ug/kg	5600	5600	820	150000 C	150000 C	130 J	130 U	130 U	59 J	53 J	140 U	120 U

Notes:
If results are below select background level, all other citeria are not applicable
U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J The associated value is qualified as an estimated quantity.
JB - Methylene Chloride was detected in method blank
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
NA - Criteria not available or not applicable
- Not analyzed
- Indicates concentration exceeded Part 201 Cleanup Criteria
- Indicates concentration exceeded applicable Part 201 Cleanup Criteria.
* - Indicates applicable Part 201 Cleanup Criteria

TABLE 3

SOIL ANALYTICAL RESULTS
AOI 50 - DUCO STORES
PCC-WEST
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)											
Sample Location:							*SB-18-12*	*SB-19-12*	*SB-20-12*	*SB-21-12*	*SB-21-12*	*SB-22-12*	*SB-22-12*
Sample Depth:		*Residential*	*Non-Residential*	*Groundwater*	*Residential*	*Non-Residential*	*10-12 ft BGS*	*9.5-11.5 ft BGS*	*10-12 ft BGS*	*10-12 ft BGS*	*4.5-6.5 ft BGS*	*10-12 ft BGS*	*5.5-7.5 ft BGS*
Sample ID:		*Drinking Water*	*Drinking Water*	*Surface Water*	*Soil Volatilization to*	*Soil Volatilization to*	*S-007097-10212-MC-030*	*S-007097-10212-MC-031*	*S-007097-10212-MC-032*	*S-007097-10212-MC-034*	*S-007097-10212-MC-033*	*S-007097-10212-MC-036*	*S-007097-10212-MC-035*
Sample Date:		*Protection*	*Protection*	*Interface Protection**	*Indoor Air Inhalation*	*Indoor Air Inhalation**	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*
Sample Type:							*Duplicate*						
Parameters	*Units*	*b*	*c*	*d*	*f*	*g*							
VOCs													
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	250000	460000	43	500	44 U	45 U	43	45 U	44 U
1,1,2,2-Tetrachloroethane	ug/kg	170	700	1600 X	4300	23000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
1,1,2-Trichloroethane	ug/kg	100	100	6600 X	4600	24000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
1,1-Dichloroethane	ug/kg	18000	50000	15000	230000	430000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
1,1-Dichloroethene	ug/kg	140	140	2600	62	330	40 U	46 U	44 U	45 U	43 U	45 U	44 U
1,2,4-Trichlorobenzene	ug/kg	4200	4200	5900 X	1100000 C	1100000 C	200 U	230 U	220 U	230 U	210 U	230 U	220 U
1,2,4-Trimethylbenzene	ug/kg	2100	2100	570	110000 C	110000 C	80 U	93 U	88 U	18 J	86 U	71 J	87 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	10 M	10 M	ID	220	1200 C	200 U	230 U	220 U	230 U	210 U	230 U	220 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	20 M	20 M	110 X	670	3600	200 U	230 U	220 U	230 U	210 U	230 U	220 U
1,2-Dichlorobenzene	ug/kg	14000	14000	280	210000 C	210000 C	80 U	93 U	88 U	90 U	86 U	91 U	87 U
1,2-Dichloroethane	ug/kg	100	100	7200 X	2100	11000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
1,2-Dichloropropane	ug/kg	100	100	4600 X	4000	7400	40 U	46 U	44 U	45 U	43 U	45 U	44 U
1,3,5-Trimethylbenzene	ug/kg	1800	1800	1100	94000 C	94000 C	80 U	93 U	88 U	90 U	86 U	21 J	87 U
1,3-Dichlorobenzene	ug/kg	170	480	680	26000	48000	80 U	93 U	88 U	90 U	86 U	91 U	87 U
1,4-Dichlorobenzene	ug/kg	1700	1700	360	19000	100000	80 U	93 U	88 U	90 U	86 U	91 U	87 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	260000	760000	44000	27000000 C	27000000 C	600 U	690 U	660 U	680 U	640 U	680 U	650 U
2-Hexanone	ug/kg	20000	58000	ID	990000	1800000	2000 U	2300 U	2200 U	2300 U	2100 U	2300 U	2200 U
2-Methylnaphthalene	ug/kg	57000	170000	4200	2700000	4900000	94 J	290 U	280 U	280 U	270 U	83 J	270 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/kg	36000	100000	ID	2700000 C	2700000 C	2000 U	2300 U	2200 U	2300 U	2100 U	2300 U	2200 U
Acetone	ug/kg	15000	42000	34000	110000000 C	110000000 C	600 U	690 U	660 U	680 U	640 U	680 U	650 U
Benzene	ug/kg	100	100	4000 X	1600	8400	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Bromodichloromethane	ug/kg	1600 W	1600 W	ID	1200	6400	80 U	93 U	88 U	90 U	86 U	91 U	87 U
Bromoform	ug/kg	1600 W	1600 W	ID	150000	770000	80 U	93 U	88 U	90 U	86 U	91 U	87 U
Bromomethane (Methyl bromide)	ug/kg	200	580	700	860	1600	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Carbon disulfide	ug/kg	16000	46000	ID	76000	140000	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Carbon tetrachloride	ug/kg	100	100	900 X	190	990	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Chlorobenzene	ug/kg	2000	2000	500	120000	220000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Chloroethane	ug/kg	8600	34000	22000 X	950000 C	950000 C	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Chloroform (Trichloromethane)	ug/kg	1600 W	1600 W	7000	7200	38000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Chloromethane (Methyl chloride)	ug/kg	5200	22000	ID	2300	10000	200 U	230 U	220 U	230 U	210 U	230 U	220 U
cis-1,2-Dichloroethene	ug/kg	1400	1400	12000	22000	41000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
cis-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Cyclohexane	ug/kg	NA	NA	NA	NA	NA	960 U	1100 U	1100 U	1100 U	1000 U	1100 U	1000 U
Dibromochloromethane	ug/kg	1600 W	1600 W	ID	3900	21000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Dichlorodifluoromethane (CFC-12)	ug/kg	95000	270000	ID	900000	1700000	80 U	93 U	88 U	90 U	86 U	91 U	87 U
Ethylbenzene	ug/kg	1500	1500	360	87000	140000 C	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Isopropyl benzene	ug/kg	91000	260000	3200	390000 C	390000 C	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Methyl acetate	ug/kg	NA	NA	NA	NA	NA	960 U	1100 U	1100 U	1100 U	1000 U	1100 U	1000 U
Methyl cyclohexane	ug/kg	NA	NA	NA	NA	NA	960 U	1100 U	1100 U	85 J	1000 U	1100 U	1000 U
Methyl tert butyl ether (MTBE)	ug/kg	800	800	140000 X	5900000 C	5900000 C	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Methylene chloride	ug/kg	100	100	30000 X	45000	240000	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Naphthalene	ug/kg	35000	100000	730	250000	470000	42 J	290 U	280 U	280 U	270 U	11 J	270 U
Styrene	ug/kg	2700	2700	2100 X	250000	520000 C	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Tetrachloroethene	ug/kg	100	100	1200 X	11000	21000	40 U	35 J	44 U	45 U	950[bc]	45 U	44 U
Toluene	ug/kg	16000	16000	5400	250000 C	250000 C	80 U	93 U	88 U	90 U	86 U	91 U	87 U
trans-1,2-Dichloroethene	ug/kg	2000	2000	30000 X	23000	43000	40 U	46 U	44 U	45 U	43 U	45 U	44 U
trans-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	40 U	46 U	44 U	45 U	43 U	45 U	44 U
Trichloroethene	ug/kg	100	100	4000 X	1000	1900	40 U	420[bc]	44 U	45 U	130[bc]	45 U	44 U
Trichlorofluoromethane (CFC-11)	ug/kg	52000	150000		560000 C	560000 C	80 U	93 U	88 U	90 U	86 U	91 U	87 U
Trifluorotrichloroethane (Freon 113)	ug/kg	550000 C	550000 C	1700	550000 C	550000 C	200 U	230 U	220 U	230 U	210 U	230 U	220 U
Vinyl chloride	ug/kg	40	40	260 X	270	2800	32 U	37 U	35 U	36 U	34 U	120[bc]	35 U
Xylenes (total)	ug/kg	5600	5600	820	150000 C	150000 C	120 U	140 U	130 U	140 U	130 U	140 U	130 U

Notes:
If results are below select background level, all other citeria are not applicable
U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J The associated value is qualified as an estimated quantity.
JB - Methylene Chloride was detected in method blank
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
NA - Criteria not available or not applicable
- Not analyzed
- Indicates concentration exceeded Part 201 Cleanup Criteria
- Indicates concentration exceeded applicable Part 201 Cleanup Criteria.
* - Indicates applicable Part 201 Cleanup Criteria

ATTACHMENT 1

SOIL BORING LOGS NEAR AOI 53

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-11-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
2	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist - wet at 1.0ft BGS	3.00		1GP		55		0.0 0.0
4	SP-SAND (FILL), trace silt and gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, moist - 2" fine to coarse gravel seam at 3.25ft BGS		BACKFILLED WITH BENTONITE CHIPS					0.0
6	- gravelly sand, fine to coarse sand, fine to coarse gravel, very moist at 4.0ft BGS - moist at 5.5ft BGS		2-1/4" BOREHOLE	2GP 6-8' -009/ 010		55		0.0
8								0.0
10				3GP		40		0.0
12				4GP		85		0.0
14	- REFUSAL at 14.0ft BGS END OF BOREHOLE @ 14.0ft BGS	14.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-12-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
	SP-SAND (FILL), trace silt, fine to medium grained, poorly graded, compact, brown, moist	1.00						4.7
2				1GP		60		
	SC-CLAYEY SAND (FILL), trace gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, moist	3.50						0.5
4	SP-GRAVELLY SAND (FILL), fine to coarse sand, fine to coarse gravel, poorly graded, compact, brown, moist		BACKFILLED WITH BENTONITE CHIPS					0.1
6			2-1/4" BOREHOLE	2GP		50		
				6-8' -007				0.1
8								0.1
10				3GP		70		
								0.1
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-13-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.90						0.2
2	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, moist			1GP		40		0.2
4	- gravelly sand, fine to coarse sand, fine to coarse gravel at 4.0ft BGS		BACKFILLED WITH BENTONITE CHIPS					0.0
6			2-1/4" BOREHOLE	2GP		30		
				6-8' -012				0.1
8								0.0
10				3GP		40		0.0
	- REFUSAL at 11.0ft BGS	11.00						
12	END OF BOREHOLE @ 11.0ft BGS							
14								
16								
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-14-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.70						
	SP-SAND (FILL), with gravel, trace silt, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, moist	1.20	1" PVC WELL CASING	1GP		80		0.0
2								
	SC-CLAYEY SAND (FILL), trace gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, wet	3.75						0.0
4								
	SP-GRAVELLY SAND (FILL), fine to coarse sand, fine to coarse gravel, poorly graded, compact, brown, moist							0.0
6				2GP		50		
				6-8' -013				0.1
8								
								0.0
10				3GP		10		
								0.0
12			1" PVC WELL SCREEN					
								0.0
14				4GP		10		
								0.0
	- REFUSAL at 15.0ft BGS	15.00						
16	END OF BOREHOLE @ 15.0ft BGS							
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30								
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34								

WELL DETAILS
Screened interval:
10.00 to 15.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-15-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GP-GRAVEL (FILL), coarse grained, compact, gray, moist	0.50						0.1
2	SP-GRAVELLY SAND (FILL), fine to coarse sand, fine to coarse gravel, poorly graded, compact, brown, moist		1" PVC WELL CASING	1GP		70		0.0
4				4-6' -008				28.5
6	SP/GP-SAND AND GRAVEL (FILL), fine to medium sand, fine to coarse gravel, poorly graded, dense, brown, moist	6.00		2GP		55		10.0
8			1" PVC WELL SCREEN					5.9
10				3GP		55		1.0
12	- REFUSAL at 12.0ft BGS	12.00						
	END OF BOREHOLE @ 12.0ft BGS							
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WELL DETAILS
Screened interval:
7.00 to 12.00ft BGS
Length: 5ft
Diameter: 1in
Slot Size: 0.010
Material: PVC

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

ATTACHMENT 2

SOIL BORING LOGS ASSOCIATED WITH DUCO STORES

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-1-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							0.3
2	SP/GP-SAND AND GRAVEL (FILL), fine to coarse sand, fine to coarse gravel, poorly graded, compact, brown, moist	1.50 2.00 2.50		1GP		85		0.1
4	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist		BACKFILLED WITH BENTONITE CHIPS					1.0
6	CL-SANDY CLAY (FILL), with silt, trace gravel, fine to coarse sand, fine to coarse gravel, low plasticity, stiff, brown, moist - trace asphalt debris at 3.5ft BGS		2-1/4" BOREHOLE	2GP		65		0.5
8	- no asphalt debris at 4.0ft BGS	8.50						
10	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	9.00		3GP		50		0.4
12	CL-SILTY CLAY, trace fine sand, low plasticity, firm, gray, moist			10-12'-019				0.2
14	END OF BOREHOLE @ 12.0ft BGS	12.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-2-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							0.9
2	SP/GP-SAND AND GRAVEL (FILL), fine to coarse sand, fine to coarse gravel, moderately graded, loose to compact, brown, moist	2.00 2.50		1GP		90		2.5
4	CL-SILTY CLAY (FILL), with sand, trace gravel, fine to medium sand, fine gravel, low plasticity, stiff, brown, moist	3.50	BACKFILLED WITH BENTONITE CHIPS	4-6' -018				0.7
6	SP-SAND (FILL), trace silt, fine to medium grained, poorly graded, compact, brown, moist	6.00	2-1/4" BOREHOLE	2GP		70		0.2
8	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, wet	7.00 8.00						
10	CL-SILTY CLAY, trace fine sand, low plasticity, stiff, gray, moist - very moist at 7.5ft BGS							
	END OF BOREHOLE @ 8.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-3-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.50						1.5
2	CL-CLAY (FILL), with sand, trace gravel, fine sand, fine to coarse gravel, low plasticity, stiff, brown, moist	2.00		1GP		70		1.7
4	SP-SAND (FILL), trace silt and gravel, fine sand, fine gravel, poorly graded, compact, brown, moist		BACKFILLED WITH BENTONITE CHIPS					0.2
6	- 2-1/2" silty clay lens, with fine to medium sand at 6.7ft BGS	6.90	2-1/4" BOREHOLE	2GP		80		0.1
8	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, wet	8.00						0.1
10	CL-SILTY CLAY, trace fine sand, low plasticity, soft, gray, moist			3GP		90		
				10-12'-001				0.2
12	- firm at 12.0ft BGS							0.1
14				4GP		100		0.1
16	END OF BOREHOLE @ 16.0ft BGS	16.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-4-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT	0.40						
2	SP-GRAVELLY SAND (FILL), fine sand, fine to coarse gravel, poorly graded, compact, brown, moist - with silt, trace fine gravel at 2.8ft BGS			1GP		75		1.8 0.7
4	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, loose to compact, brown	4.00	BACKFILLED WITH BENTONITE CHIPS	4-6' -004				0.1
6	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, wet	6.00 7.00	2-1/4" BOREHOLE	2GP		75		0.0
8	CH-SILTY CLAY, trace fine sand, low plasticity, soft, gray, moist - firm at 7.5ft BGS							0.0
10				3GP 10-12' -003		85		0.0
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-5-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.25						0.9
2	SP/GP-SAND AND GRAVEL (FILL), trace concrete debris, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	3.00		1GP 2-4' -016		70		9.9
4	CL-SANDY CLAY (FILL), trace gravel, fine to medium sand, fine to coarse gravel, low plasticity, stiff, brown, moist - mottled, trace staining at 3.25ft BGS		BACKFILLED WITH BENTONITE CHIPS					0.2
6	- with silt, not mottled, no staining at 3.5ft BGS - no silt, firm at 4.0ft BGS		2-1/4" BOREHOLE	2GP 5.5-7.5' -017		65		0.1
8	- soft at 7.0ft BGS	7.85						
	SP/GP-SAND AND GRAVEL (FILL), trace concrete debris, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, wet	9.00 9.25						0.1
10				3GP		75		
	SP-SAND, with silt, fine to medium grained, poorly graded, compact, gray, wet							0.0
12	CL-SILTY CLAY, trace fine sand, low plasticity, stiff, gray, very moist - moist at 10.0ft BGS	12.00						
14	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-6-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.50						0.1
2	GP-GRAVEL (FILL), coarse grained, compact, gray, moist	2.00		1GP		75		
	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, moist							0.1
4			BACKFILLED WITH BENTONITE CHIPS					
								0.0
6			2-1/4" BOREHOLE	2GP		50		
								0.0
8								
								0.0
10				3GP 9-11' -014		60		
	CL-SILTY CLAY, trace sand and gravel, fine sand, fine to coarse gravel, low plasticity, firm, brown, moist	11.00 11.50 12.00						0.0
12								
	SM-SILTY SAND, fine grained, compact, brown, wet							
14	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-7-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
2	SP-SAND (FILL), trace silt and gravel, fine to coarse sand, fine to coarse gravel, poorly graded, loose to compact, brown, moist			1GP		70		0.1
4			BACKFILLED WITH BENTONITE CHIPS					0.1
6			2-1/4" BOREHOLE	2GP		70		0.1
8								0.1
10				3GP		65		0..0
				10-12' -020				0.1
12	SP-SAND, with silt, trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, moist - wet at 12.0ft BGS	11.50						0.0
14				4GP		60		0.0
16	END OF BOREHOLE @ 16.0ft BGS	16.00						
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22								
24								
26								
28								
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32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-8-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							2.8
2	SP-SAND (FILL), trace silt and gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, moist	1.50		1GP		85		2.9
4	- with silt at 4.8ft BGS		BACKFILLED WITH BENTONITE CHIPS					0.7
6			2-1/4" BOREHOLE	2GP		60		0.2
8								0.1
10				3GP (9.5-11.5' -002)		45		0.1
	- wet at 11.5ft BGS							
12	CL-SILTY CLAY, trace sand and gravel, fine to medium sand, fine gravel, low plasticity, firm, brown, moist	11.85 12.00						
14	END OF BOREHOLE @ 12.0ft BGS							
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-9-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT	0.65						
2	SP-SAND (FILL), with gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, moist - trace silt and gravel at 1.2ft BGS			1GP		75		1.5 0.0
4			BACKFILLED WITH BENTONITE CHIPS					0.1
6			2-1/4" BOREHOLE	2GP (5.5-7.5' -005)		55		0.1
8	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, loose to compact, brown, wet	7.50 8.00						0.1
10	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, wet	9.50		3GP (10-12' -006)		80		0.1
12	CL-SILTY CLAY, trace fine sand, low plasticity, firm, gray, moist	12.00						
	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-10-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
	SP/GP-SAND AND GRAVEL (FILL), fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	0.70						0.0
2				1GP		80		
	CL-SANDY CLAY (FILL), with silt, trace gravel, fine to medium sand, fine to coarse gravel, low plasticity, stiff, brown, moist							0.0
4			BACKFILLED WITH BENTONITE CHIPS					
								0.0
6	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	6.00	2-1/4" BOREHOLE	2GP		90		
								0.0
8	- with clay at 6.5ft BGS - fine to coarse sand at 7.5ft BGS							
								0.0
10				3GP		65		
	CL-SILTY CLAY, trace fine sand, low plasticity, firm, gray, moist	10.75		10-12' -021				0.0
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-16-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.60						
2	SP/GP-SAND AND GRAVEL, trace concrete, medium to fine grained, poorly graded, brown, moist			1GP 2-4' -026				0.6
	- staining at 3.3ft BGS	3.00						
4	CL-CLAY, trace gravel, medium to fine grained, stiff, moist		BACKFILLED WITH BENTONITE CHIPS					0.9
6			2-1/4" BOREHOLE	6-8' -027 2GP				0.5
8	SP/GP-SAND AND GRAVEL, coarse debris, gravel, brown, wet	8.00						0.1
10	END OF BOREHOLE @ 10.0ft BGS	10.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-17-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.83						
2	SC-CLAYEY SAND, trace gravel, medium to fine grained, fine gravel, poorly graded, brown, moist			1GP				0.1
4			BACKFILLED WITH BENTONITE CHIPS					
6			2-1/4" BOREHOLE					
8				2GP				0.1
10				10-12' -028				
12	SP-SAND, medium to fine grained, gray, moist	12.00		3GP				0.2
	CL-CLAY, moderate plasticity, gray	13.00						
14		15.00						
	END OF BOREHOLE @ 15.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-18-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist							0.6
2				1GP				0.5
4			BACKFILLED WITH BENTONITE CHIPS					0.5
6			2-1/4" BOREHOLE					0.6
8				2GP				0.5
10				10-12' -029/ 030'				
12				3GP				
14								
	END OF BOREHOLE @ 15.0ft BGS	15.00						
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32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-19-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							1.5
2	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist	1.50		1GP				1.2
4	CI-CLAY, trace sand, gravel, firm, moderate plasticity	3.50 / 4.00	BACKFILLED WITH BENTONITE CHIPS					0.7
6	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist		2-1/4" BOREHOLE					0.6
8				2GP				0.5
10				9.5-11.5' -031				0.2
12	CL-SILTY CLAY, trace silt, trace gravel, medium to fine grained, moderate plasticity, firm, gray, moist	11.50		3GP				0.1
14								
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-20-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.00						
2	CL-CLAY, with sand, trace gravel, medium to fine grained, low plasticity, stiff, brown	3.50		1GP				1.5
4	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist	8.00	BACKFILLED WITH BENTONITE CHIPS					1.0
6			2-1/4" BOREHOLE					1.2
8	CI-CLAY, trace silt, trace gravel, moderately soft, moderate plasticity, gray, moist	14.00		2GP				1.4
10				10-12' -032				
12	- firm at 12.0ft BGS	15.00		3GP				1.5
14	SP-SAND, with gravel, medium grained, gray/brown, wet							0.7
16	END OF BOREHOLE @ 15.0ft BGS							
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-21-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT							
2				1GP				1.1
4			BACKFILLED WITH BENTONITE CHIPS					1.2
	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist	5.00	2-1/4" BOREHOLE	4.5-6.5' -033				
6								1.3
	CI-CLAY, trace silt, trace gravel, firm, moderate plasticity, gray, moist	7.00		2GP				
8								0.7
10				10-12' -034				0.6
12				3GP				
14								0.4
	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-22-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT/PAVEMENT	0.50						
	SP-SAND, trace gravel, medium to fine grained, brown, moist		BACKFILLED WITH BENTONITE CHIPS; 2-1/4" BOREHOLE	1GP				1.5; 1.2; 1.5; 1.9
	SC-CLAYEY SAND, grave, medium to fine sand, brown, wet	7.50; 8.00		2GP				1.6
	CI-SILTY CLAY, trace sand, trace gravel, gray, moist			10-12" -029/ 030; 3GP				1.2; 1.0
	END OF BOREHOLE @ 15.0ft BGS	15.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

ATTACHMENT 3

LABORATORY ANALYTICAL REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-15886-1
Client Project/Site: 7097-T05, RACER PCC

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Authorized for release by:
10/16/2012 10:49:03 AM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions/Glossary 5
Sample Summary 6
Detection Summary 7
Method Summary 9
Client Sample Results 10
QC Association Summary 34
QC Sample Results 36
Surrogate Summary 42
Lab Chronicle 43
Certification Summary 46
Chain of Custody 47
Receipt Checklists 50

Job ID: 240-15886-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 7097-T05, RACER PCC

Report Number: 240-15886-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 10/03/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.7 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples S-007097-10212-MC-026 (240-15886-1), S-007097-10212-MC-027 (240-15886-2), S-007097-10212-MC-028 (240-15886-3), S-007097-10212-MC-029 (240-15886-4), S-007097-10212-MC-030 (240-15886-5), S-007097-10212-MC-031 (240-15886-6), S-007097-10212-MC-032 (240-15886-7), S-007097-10212-MC-033 (240-15886-8), S-007097-10212-MC-034 (240-15886-9), S-007097-10212-MC-035 (240-15886-10), S-007097-10212-MC-036 (240-15886-11) and TB-007097-10212-MC-037 (240-15886-12) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 10/05/2012 and 10/10/2012 and analyzed on 10/09/2012 and 10/10/2012.

The laboratory control sample (LCS) for batch 60727 exceeded control limits for the following analyte(s): bromomethane. This analyte has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The results have been reported and qualified.

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

Job ID: 240-15886-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-15886-1	S-007097-10212-MC-026	Solid	10/02/12 09:00	10/03/12 09:30
240-15886-2	S-007097-10212-MC-027	Solid	10/02/12 09:10	10/03/12 09:30
240-15886-3	S-007097-10212-MC-028	Solid	10/02/12 09:30	10/03/12 09:30
240-15886-4	S-007097-10212-MC-029	Solid	10/02/12 10:00	10/03/12 09:30
240-15886-5	S-007097-10212-MC-030	Solid	10/02/12 10:10	10/03/12 09:30
240-15886-6	S-007097-10212-MC-031	Solid	10/02/12 10:30	10/03/12 09:30
240-15886-7	S-007097-10212-MC-032	Solid	10/02/12 11:30	10/03/12 09:30
240-15886-8	S-007097-10212-MC-033	Solid	10/02/12 12:00	10/03/12 09:30
240-15886-9	S-007097-10212-MC-034	Solid	10/02/12 12:10	10/03/12 09:30
240-15886-10	S-007097-10212-MC-035	Solid	10/02/12 12:30	10/03/12 09:30
240-15886-11	S-007097-10212-MC-036	Solid	10/02/12 12:40	10/03/12 09:30
240-15886-12	TB-007097-10212-MC-037	Solid	10/02/12 00:00	10/03/12 09:30

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Client Sample ID: S-007097-10212-MC-026 — Lab Sample ID: 240-15886-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	36	J	43	18	ug/Kg	1	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	77	J	85	5.3	ug/Kg	1	☼	8260B	Total/NA
Ethylbenzene	10	J	43	5.8	ug/Kg	1	☼	8260B	Total/NA
Trichloroethene	71		43	10	ug/Kg	1	☼	8260B	Total/NA
Xylenes, Total	59	J	130	8.6	ug/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	86		43	22	ug/Kg	1	☼	8260B	Total/NA
Isopropylbenzene	23	J	210	6.9	ug/Kg	1	☼	8260B	Total/NA
Methylcyclohexane	17	J	1000	13	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	23	J	270	18	ug/Kg	1	☼	8260B	Total/NA
Naphthalene	29	J	270	7.1	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-027 — Lab Sample ID: 240-15886-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	140		44	19	ug/Kg	1	☼	8260B	Total/NA
1,1-Dichloroethene	280		44	20	ug/Kg	1	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	18	J	89	5.6	ug/Kg	1	☼	8260B	Total/NA
Tetrachloroethene	23	J	44	13	ug/Kg	1	☼	8260B	Total/NA
Toluene	25	J	89	19	ug/Kg	1	☼	8260B	Total/NA
Trichloroethene	190		44	11	ug/Kg	1	☼	8260B	Total/NA
Xylenes, Total	53	J	130	9.0	ug/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	880		44	23	ug/Kg	1	☼	8260B	Total/NA
Methyl acetate	170	J	1100	28	ug/Kg	1	☼	8260B	Total/NA
Methylcyclohexane	13	J	1100	13	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	33	J	280	19	ug/Kg	1	☼	8260B	Total/NA
Naphthalene	33	J	280	7.4	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-028 — Lab Sample ID: 240-15886-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1000		47	11	ug/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	81		47	25	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-029 — Lab Sample ID: 240-15886-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	36	J	40	21	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-030 — Lab Sample ID: 240-15886-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	43		40	21	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	94	J	250	17	ug/Kg	1	☼	8260B	Total/NA
Naphthalene	42	J	250	6.7	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-031 — Lab Sample ID: 240-15886-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	35	J	46	14	ug/Kg	1	☼	8260B	Total/NA
Trichloroethene	420		46	11	ug/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	500		46	24	ug/Kg	1	☼	8260B	Total/NA

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Client Sample ID: S-007097-10212-MC-032 — Lab Sample ID: 240-15886-7

No Detections

Client Sample ID: S-007097-10212-MC-033 — Lab Sample ID: 240-15886-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	950		43	13	ug/Kg	1	☼	8260B	Total/NA
Trichloroethene	130		43	10	ug/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	43		43	23	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-034 — Lab Sample ID: 240-15886-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	18	J	90	5.6	ug/Kg	1	☼	8260B	Total/NA
Methylcyclohexane	85	J	1100	14	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: S-007097-10212-MC-035 — Lab Sample ID: 240-15886-10

No Detections

Client Sample ID: S-007097-10212-MC-036 — Lab Sample ID: 240-15886-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	71	J	91	5.7	ug/Kg	1	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	21	J	91	6.6	ug/Kg	1	☼	8260B	Total/NA
Vinyl chloride	120		36	20	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	83	J	280	19	ug/Kg	1	☼	8260B	Total/NA
Naphthalene	11	J	280	7.6	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: TB-007097-10212-MC-037 — Lab Sample ID: 240-15886-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	8.4	J	80	5.0	ug/Kg	1		8260B	Total/NA

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
Moisture	Percent Moisture	EPA	TAL NC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-026
Date Collected: 10/02/12 09:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-1
Matrix: Solid
Percent Solids: 94.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	640	U	640	180	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Benzene	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Bromodichloromethane	85	U	85	11	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Bromoform	85	U	85	20	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Bromomethane	210	U	210	31	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
2-Butanone (MEK)	640	U	640	46	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Carbon disulfide	210	U	210	13	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Carbon tetrachloride	43	U	43	6.8	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Chlorobenzene	43	U	43	6.8	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Chloroethane	210	U	210	65	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Chloroform	43	U	43	9.4	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Chloromethane	210	U	210	15	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,1-Dichloroethane	**36**	**J**	43	18	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2-Dichloroethane	43	U	43	11	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,1-Dichloroethene	43	U	43	19	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2-Dichloropropane	43	U	43	8.7	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2,4-Trimethylbenzene	**77**	**J**	85	5.3	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
cis-1,3-Dichloropropene	43	U	43	8.4	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
trans-1,3-Dichloropropene	43	U	43	21	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Ethylbenzene	**10**	**J**	43	5.8	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
2-Hexanone	2100	U	2100	21	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Methylene Chloride	210	U	210	82	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
4-Methyl-2-pentanone (MIBK)	2100	U	2100	51	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Styrene	43	U	43	6.0	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,1,2,2-Tetrachloroethane	43	U	43	9.5	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Tetrachloroethene	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Toluene	85	U	85	18	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Trichloroethene	**71**		43	10	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,3,5-Trimethylbenzene	85	U	85	6.2	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Vinyl chloride	34	U	34	19	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Xylenes, Total	**59**	**J**	130	8.6	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,1,1-Trichloroethane	**86**		43	22	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,1,2-Trichloroethane	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Cyclohexane	1000	U	1000	43	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2-Dibromo-3-Chloropropane	210	U	210	53	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2-Dibromoethane	210	U	210	11	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Dichlorodifluoromethane	85	U	85	17	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
cis-1,2-Dichloroethene	43	U	43	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
trans-1,2-Dichloroethene	43	U	43	9.8	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Isopropylbenzene	**23**	**J**	210	6.9	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Methyl acetate	1000	U	1000	27	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Methyl tert-butyl ether	210	U	210	7.6	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	210	42	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2,4-Trichlorobenzene	210	U	210	7.8	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,2-Dichlorobenzene	85	U	85	9.2	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,3-Dichlorobenzene	85	U	85	5.1	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
1,4-Dichlorobenzene	85	U	85	8.5	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Trichlorofluoromethane	85	U	85	17	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Dibromochloromethane	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
Methylcyclohexane	**17**	**J**	1000	13	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1
2-Methylnaphthalene	**23**	**J**	270	18	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-026
Date Collected: 10/02/12 09:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-1
Matrix: Solid
Percent Solids: 94.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	29	J	270	7.1	ug/Kg	☼	10/05/12 21:12	10/09/12 03:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*39 - 128*	*10/05/12 21:12*	*10/09/12 03:58*	*1*
4-Bromofluorobenzene (Surr)	*83*		*26 - 141*	*10/05/12 21:12*	*10/09/12 03:58*	*1*
Toluene-d8 (Surr)	*80*		*33 - 134*	*10/05/12 21:12*	*10/09/12 03:58*	*1*
Dibromofluoromethane (Surr)	*77*		*30 - 122*	*10/05/12 21:12*	*10/09/12 03:58*	*1*

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-027
Date Collected: 10/02/12 09:10
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-2
Matrix: Solid
Percent Solids: 89.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	670	U	670	190	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Benzene	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Bromodichloromethane	89	U	89	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Bromoform	89	U	89	21	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Bromomethane	220	U	220	32	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
2-Butanone (MEK)	670	U	670	48	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Carbon tetrachloride	44	U	44	7.1	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Chlorobenzene	44	U	44	7.1	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Chloroethane	220	U	220	68	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Chloroform	44	U	44	9.8	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Chloromethane	220	U	220	16	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,1-Dichloroethane	**140**		44	19	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,1-Dichloroethene	**280**		44	20	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2-Dichloropropane	44	U	44	9.1	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2,4-Trimethylbenzene	**18**	**J**	89	5.6	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
cis-1,3-Dichloropropene	44	U	44	8.8	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Ethylbenzene	44	U	44	6.0	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Methylene Chloride	220	U	220	86	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	53	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Styrene	44	U	44	6.2	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,1,2,2-Tetrachloroethane	44	U	44	9.9	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Tetrachloroethene	**23**	**J**	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Toluene	**25**	**J**	89	19	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Trichloroethene	**190**		44	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,3,5-Trimethylbenzene	89	U	89	6.4	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Vinyl chloride	36	U	36	20	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Xylenes, Total	**53**	**J**	130	9.0	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,1,1-Trichloroethane	**880**		44	23	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Cyclohexane	1100	U	1100	44	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2-Dibromo-3-Chloropropane	220	U	220	56	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Dichlorodifluoromethane	89	U	89	18	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
cis-1,2-Dichloroethene	44	U	44	7.7	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
trans-1,2-Dichloroethene	44	U	44	10	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Isopropylbenzene	220	U	220	7.2	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Methyl acetate	**170**	**J**	1100	28	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Methyl tert-butyl ether	220	U	220	7.9	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2,4-Trichlorobenzene	220	U	220	8.1	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,2-Dichlorobenzene	89	U	89	9.6	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,3-Dichlorobenzene	89	U	89	5.3	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
1,4-Dichlorobenzene	89	U	89	8.9	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Trichlorofluoromethane	89	U	89	18	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
Methylcyclohexane	**13**	**J**	1100	13	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1
2-Methylnaphthalene	**33**	**J**	280	19	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-027
Date Collected: 10/02/12 09:10
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-2
Matrix: Solid
Percent Solids: 89.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	33	J	280	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 04:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*39 - 128*	*10/05/12 21:12*	*10/09/12 04:22*	*1*
4-Bromofluorobenzene (Surr)	*80*		*26 - 141*	*10/05/12 21:12*	*10/09/12 04:22*	*1*
Toluene-d8 (Surr)	*80*		*33 - 134*	*10/05/12 21:12*	*10/09/12 04:22*	*1*
Dibromofluoromethane (Surr)	*75*		*30 - 122*	*10/05/12 21:12*	*10/09/12 04:22*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-028
Date Collected: 10/02/12 09:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-3
Matrix: Solid
Percent Solids: 84.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	710	U	710	200	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Benzene	47	U	47	14	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Bromodichloromethane	95	U	95	12	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Bromoform	95	U	95	23	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Bromomethane	240	U	240	34	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
2-Butanone (MEK)	710	U	710	51	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Carbon disulfide	240	U	240	14	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Carbon tetrachloride	47	U	47	7.6	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Chlorobenzene	47	U	47	7.6	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Chloroethane	240	U	240	72	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Chloroform	47	U	47	10	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Chloromethane	240	U	240	17	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,1-Dichloroethane	47	U	47	20	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2-Dichloroethane	47	U	47	12	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,1-Dichloroethene	47	U	47	21	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2-Dichloropropane	47	U	47	9.7	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2,4-Trimethylbenzene	95	U	95	5.9	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
cis-1,3-Dichloropropene	47	U	47	9.4	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
trans-1,3-Dichloropropene	47	U	47	24	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Ethylbenzene	47	U	47	6.4	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
2-Hexanone	2400	U	2400	24	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Methylene Chloride	240	U	240	91	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
4-Methyl-2-pentanone (MIBK)	2400	U	2400	57	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Styrene	47	U	47	6.6	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,1,2,2-Tetrachloroethane	47	U	47	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Tetrachloroethene	47	U	47	14	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Toluene	95	U	95	20	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Trichloroethene	**1000**		47	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,3,5-Trimethylbenzene	95	U	95	6.9	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Vinyl chloride	38	U	38	21	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Xylenes, Total	140	U	140	9.6	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,1,1-Trichloroethane	**81**		47	25	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,1,2-Trichloroethane	47	U	47	14	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Cyclohexane	1100	U	1100	47	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2-Dibromo-3-Chloropropane	240	U	240	59	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2-Dibromoethane	240	U	240	12	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Dichlorodifluoromethane	95	U	95	19	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
cis-1,2-Dichloroethene	47	U	47	8.2	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
trans-1,2-Dichloroethene	47	U	47	11	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Isopropylbenzene	240	U	240	7.7	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Methyl acetate	1100	U	1100	30	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Methyl tert-butyl ether	240	U	240	8.4	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	240	U	240	46	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2,4-Trichlorobenzene	240	U	240	8.7	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,2-Dichlorobenzene	95	U	95	10	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,3-Dichlorobenzene	95	U	95	5.7	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
1,4-Dichlorobenzene	95	U	95	9.5	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Trichlorofluoromethane	95	U	95	19	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Dibromochloromethane	47	U	47	14	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
Methylcyclohexane	1100	U	1100	14	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1
2-Methylnaphthalene	300	U	300	20	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-028
Date Collected: 10/02/12 09:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-3
Matrix: Solid
Percent Solids: 84.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	300	U	300	7.9	ug/Kg	☼	10/05/12 21:12	10/09/12 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*39 - 128*	*10/05/12 21:12*	*10/09/12 04:46*	*1*
4-Bromofluorobenzene (Surr)	*87*		*26 - 141*	*10/05/12 21:12*	*10/09/12 04:46*	*1*
Toluene-d8 (Surr)	*85*		*33 - 134*	*10/05/12 21:12*	*10/09/12 04:46*	*1*
Dibromofluoromethane (Surr)	*81*		*30 - 122*	*10/05/12 21:12*	*10/09/12 04:46*	*1*

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-029
Date Collected: 10/02/12 10:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-4
Matrix: Solid
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	610	U	610	170	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Benzene	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Bromodichloromethane	81	U	81	10	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Bromoform	81	U	81	19	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Bromomethane	200	U	200	29	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
2-Butanone (MEK)	610	U	610	43	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Carbon disulfide	200	U	200	12	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Carbon tetrachloride	40	U	40	6.5	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Chlorobenzene	40	U	40	6.5	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Chloroethane	200	U	200	62	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Chloroform	40	U	40	8.9	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Chloromethane	200	U	200	14	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,1-Dichloroethane	40	U	40	17	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2-Dichloroethane	40	U	40	10	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,1-Dichloroethene	40	U	40	18	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2-Dichloropropane	40	U	40	8.3	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2,4-Trimethylbenzene	81	U	81	5.1	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
cis-1,3-Dichloropropene	40	U	40	8.0	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Ethylbenzene	40	U	40	5.5	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
2-Hexanone	2000	U	2000	20	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Methylene Chloride	200	U	200	78	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	49	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Styrene	40	U	40	5.7	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,1,2,2-Tetrachloroethane	40	U	40	9.0	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Tetrachloroethene	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Toluene	81	U	81	17	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Trichloroethene	40	U	40	9.8	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,3,5-Trimethylbenzene	81	U	81	5.9	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Vinyl chloride	32	U	32	18	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Xylenes, Total	120	U	120	8.2	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,1,1-Trichloroethane	**36**	**J**	40	21	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Cyclohexane	970	U	970	40	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2-Dibromo-3-Chloropropane	200	U	200	51	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2-Dibromoethane	200	U	200	10	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Dichlorodifluoromethane	81	U	81	16	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
cis-1,2-Dichloroethene	40	U	40	7.0	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
trans-1,2-Dichloroethene	40	U	40	9.3	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Isopropylbenzene	200	U	200	6.6	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Methyl acetate	970	U	970	25	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Methyl tert-butyl ether	200	U	200	7.2	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2,4-Trichlorobenzene	200	U	200	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,2-Dichlorobenzene	81	U	81	8.7	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,3-Dichlorobenzene	81	U	81	4.9	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
1,4-Dichlorobenzene	81	U	81	8.1	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Trichlorofluoromethane	81	U	81	16	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Dibromochloromethane	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
Methylcyclohexane	970	U	970	12	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1
2-Methylnaphthalene	250	U	250	17	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-029
Date Collected: 10/02/12 10:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-4
Matrix: Solid
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	250	U	250	6.8	ug/Kg	☼	10/05/12 21:12	10/09/12 05:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*39 - 128*	*10/05/12 21:12*	*10/09/12 05:10*	*1*
4-Bromofluorobenzene (Surr)	*87*		*26 - 141*	*10/05/12 21:12*	*10/09/12 05:10*	*1*
Toluene-d8 (Surr)	*87*		*33 - 134*	*10/05/12 21:12*	*10/09/12 05:10*	*1*
Dibromofluoromethane (Surr)	*85*		*30 - 122*	*10/05/12 21:12*	*10/09/12 05:10*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-030
Date Collected: 10/02/12 10:10
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-5
Matrix: Solid
Percent Solids: 93.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Benzene	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Bromodichloromethane	80	U	80	9.9	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Bromoform	80	U	80	19	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Bromomethane	200	U	200	29	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
2-Butanone (MEK)	600	U	600	43	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Carbon disulfide	200	U	200	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Chlorobenzene	40	U	40	6.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Chloroethane	200	U	200	61	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Chloroform	40	U	40	8.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Chloromethane	200	U	200	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,1-Dichloroethane	40	U	40	17	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2-Dichloroethane	40	U	40	10	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,1-Dichloroethene	40	U	40	18	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Ethylbenzene	40	U	40	5.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
2-Hexanone	2000	U	2000	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Methylene Chloride	200	U	200	77	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Styrene	40	U	40	5.6	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Tetrachloroethene	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Toluene	80	U	80	17	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Trichloroethene	40	U	40	9.7	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Vinyl chloride	32	U	32	18	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Xylenes, Total	120	U	120	8.1	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,1,1-Trichloroethane	**43**		40	21	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Cyclohexane	960	U	960	40	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2-Dibromoethane	200	U	200	10	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Isopropylbenzene	200	U	200	6.5	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Methyl acetate	960	U	960	25	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Trichlorofluoromethane	80	U	80	16	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Dibromochloromethane	40	U	40	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
Methylcyclohexane	960	U	960	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1
2-Methylnaphthalene	**94**	**J**	250	17	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-030
Date Collected: 10/02/12 10:10
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-5
Matrix: Solid
Percent Solids: 93.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	42	J	250	6.7	ug/Kg	☼	10/05/12 21:12	10/09/12 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*39 - 128*	*10/05/12 21:12*	*10/09/12 21:02*	*1*
4-Bromofluorobenzene (Surr)	*85*		*26 - 141*	*10/05/12 21:12*	*10/09/12 21:02*	*1*
Toluene-d8 (Surr)	*84*		*33 - 134*	*10/05/12 21:12*	*10/09/12 21:02*	*1*
Dibromofluoromethane (Surr)	*83*		*30 - 122*	*10/05/12 21:12*	*10/09/12 21:02*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-031
Date Collected: 10/02/12 10:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-6
Matrix: Solid
Percent Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	690	U	690	200	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Benzene	46	U	46	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Bromodichloromethane	93	U	93	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Bromoform	93	U	93	22	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Bromomethane	230	U	230	34	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
2-Butanone (MEK)	690	U	690	50	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Carbon disulfide	230	U	230	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Carbon tetrachloride	46	U	46	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Chlorobenzene	46	U	46	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Chloroethane	230	U	230	71	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Chloroform	46	U	46	10	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Chloromethane	230	U	230	16	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,1-Dichloroethane	46	U	46	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2-Dichloroethane	46	U	46	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,1-Dichloroethene	46	U	46	21	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2-Dichloropropane	46	U	46	9.5	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2,4-Trimethylbenzene	93	U	93	5.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
cis-1,3-Dichloropropene	46	U	46	9.1	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
trans-1,3-Dichloropropene	46	U	46	23	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Ethylbenzene	46	U	46	6.3	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
2-Hexanone	2300	U	2300	23	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Methylene Chloride	230	U	230	89	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	56	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Styrene	46	U	46	6.5	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,1,2,2-Tetrachloroethane	46	U	46	10	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Tetrachloroethene	**35**	**J**	46	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Toluene	93	U	93	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Trichloroethene	**420**		46	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,3,5-Trimethylbenzene	93	U	93	6.7	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Vinyl chloride	37	U	37	21	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Xylenes, Total	140	U	140	9.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,1,1-Trichloroethane	**500**		46	24	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,1,2-Trichloroethane	46	U	46	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Cyclohexane	1100	U	1100	46	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2-Dibromo-3-Chloropropane	230	U	230	58	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2-Dibromoethane	230	U	230	12	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Dichlorodifluoromethane	93	U	93	19	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
cis-1,2-Dichloroethene	46	U	46	8.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
trans-1,2-Dichloroethene	46	U	46	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Isopropylbenzene	230	U	230	7.5	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Methyl acetate	1100	U	1100	29	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Methyl tert-butyl ether	230	U	230	8.2	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	45	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2,4-Trichlorobenzene	230	U	230	8.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,2-Dichlorobenzene	93	U	93	10	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,3-Dichlorobenzene	93	U	93	5.6	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
1,4-Dichlorobenzene	93	U	93	9.3	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Trichlorofluoromethane	93	U	93	19	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Dibromochloromethane	46	U	46	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
Methylcyclohexane	1100	U	1100	14	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1
2-Methylnaphthalene	290	U	290	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-031
Date Collected: 10/02/12 10:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-6
Matrix: Solid
Percent Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	290	U	290	7.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*39 - 128*	*10/05/12 21:12*	*10/09/12 21:26*	*1*
4-Bromofluorobenzene (Surr)	*73*		*26 - 141*	*10/05/12 21:12*	*10/09/12 21:26*	*1*
Toluene-d8 (Surr)	*74*		*33 - 134*	*10/05/12 21:12*	*10/09/12 21:26*	*1*
Dibromofluoromethane (Surr)	*74*		*30 - 122*	*10/05/12 21:12*	*10/09/12 21:26*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-032
Date Collected: 10/02/12 11:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-7
Matrix: Solid
Percent Solids: 91.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	660	U	660	190	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Benzene	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Bromodichloromethane	88	U	88	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Bromoform	88	U	88	21	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Bromomethane	220	U	220	32	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
2-Butanone (MEK)	660	U	660	47	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Carbon tetrachloride	44	U	44	7.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Chlorobenzene	44	U	44	7.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Chloroethane	220	U	220	67	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Chloroform	44	U	44	9.7	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Chloromethane	220	U	220	15	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,1-Dichloroethane	44	U	44	19	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,1-Dichloroethene	44	U	44	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2-Dichloropropane	44	U	44	9.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2,4-Trimethylbenzene	88	U	88	5.5	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
cis-1,3-Dichloropropene	44	U	44	8.7	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Ethylbenzene	44	U	44	5.9	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Methylene Chloride	220	U	220	85	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	53	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Styrene	44	U	44	6.2	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,1,2,2-Tetrachloroethane	44	U	44	9.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Tetrachloroethene	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Toluene	88	U	88	19	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Trichloroethene	44	U	44	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,3,5-Trimethylbenzene	88	U	88	6.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Vinyl chloride	35	U	35	20	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Xylenes, Total	130	U	130	8.9	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,1,1-Trichloroethane	44	U	44	23	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Cyclohexane	1100	U	1100	44	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2-Dibromo-3-Chloropropane	220	U	220	55	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Dichlorodifluoromethane	88	U	88	18	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
cis-1,2-Dichloroethene	44	U	44	7.6	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
trans-1,2-Dichloroethene	44	U	44	10	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Isopropylbenzene	220	U	220	7.2	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Methyl tert-butyl ether	220	U	220	7.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2,4-Trichlorobenzene	220	U	220	8.0	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,2-Dichlorobenzene	88	U	88	9.5	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,3-Dichlorobenzene	88	U	88	5.3	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
1,4-Dichlorobenzene	88	U	88	8.8	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Trichlorofluoromethane	88	U	88	18	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
Methylcyclohexane	1100	U	1100	13	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1
2-Methylnaphthalene	280	U	280	19	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-032
Date Collected: 10/02/12 11:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-7
Matrix: Solid
Percent Solids: 91.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	280	U	280	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*39 - 128*	*10/05/12 21:12*	*10/09/12 21:49*	*1*
4-Bromofluorobenzene (Surr)	*67*		*26 - 141*	*10/05/12 21:12*	*10/09/12 21:49*	*1*
Toluene-d8 (Surr)	*72*		*33 - 134*	*10/05/12 21:12*	*10/09/12 21:49*	*1*
Dibromofluoromethane (Surr)	*72*		*30 - 122*	*10/05/12 21:12*	*10/09/12 21:49*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-033
Date Collected: 10/02/12 12:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-8
Matrix: Solid
Percent Solids: 85.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	640	U	640	180	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Benzene	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Bromodichloromethane	86	U	86	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Bromoform	86	U	86	20	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Bromomethane	210	U	210	31	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
2-Butanone (MEK)	640	U	640	46	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Carbon disulfide	210	U	210	13	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Carbon tetrachloride	43	U	43	6.9	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Chlorobenzene	43	U	43	6.9	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Chloroethane	210	U	210	65	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Chloroform	43	U	43	9.4	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Chloromethane	210	U	210	15	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,1-Dichloroethane	43	U	43	18	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2-Dichloroethane	43	U	43	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,1-Dichloroethene	43	U	43	19	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2-Dichloropropane	43	U	43	8.8	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2,4-Trimethylbenzene	86	U	86	5.4	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
cis-1,3-Dichloropropene	43	U	43	8.5	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
trans-1,3-Dichloropropene	43	U	43	21	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Ethylbenzene	43	U	43	5.8	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
2-Hexanone	2100	U	2100	21	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Methylene Chloride	210	U	210	83	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
4-Methyl-2-pentanone (MIBK)	2100	U	2100	51	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Styrene	43	U	43	6.0	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,1,2,2-Tetrachloroethane	43	U	43	9.5	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Tetrachloroethene	**950**		43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Toluene	86	U	86	18	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Trichloroethene	**130**		43	10	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,3,5-Trimethylbenzene	86	U	86	6.2	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Vinyl chloride	34	U	34	19	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Xylenes, Total	130	U	130	8.7	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,1,1-Trichloroethane	**43**		43	23	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,1,2-Trichloroethane	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Cyclohexane	1000	U	1000	43	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2-Dibromo-3-Chloropropane	210	U	210	54	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2-Dibromoethane	210	U	210	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Dichlorodifluoromethane	86	U	86	17	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
cis-1,2-Dichloroethene	43	U	43	7.4	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
trans-1,2-Dichloroethene	43	U	43	9.9	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Isopropylbenzene	210	U	210	7.0	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Methyl acetate	1000	U	1000	27	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Methyl tert-butyl ether	210	U	210	7.6	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	210	42	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2,4-Trichlorobenzene	210	U	210	7.8	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,2-Dichlorobenzene	86	U	86	9.2	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,3-Dichlorobenzene	86	U	86	5.1	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
1,4-Dichlorobenzene	86	U	86	8.6	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Trichlorofluoromethane	86	U	86	17	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Dibromochloromethane	43	U	43	13	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
Methylcyclohexane	1000	U	1000	13	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1
2-Methylnaphthalene	270	U	270	18	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-033
Date Collected: 10/02/12 12:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-8
Matrix: Solid
Percent Solids: 85.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	270	U	270	7.2	ug/Kg	☼	10/05/12 21:12	10/09/12 22:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*	*10/05/12 21:12*	*10/09/12 22:13*	*1*
4-Bromofluorobenzene (Surr)	*76*		*26 - 141*	*10/05/12 21:12*	*10/09/12 22:13*	*1*
Toluene-d8 (Surr)	*76*		*33 - 134*	*10/05/12 21:12*	*10/09/12 22:13*	*1*
Dibromofluoromethane (Surr)	*74*		*30 - 122*	*10/05/12 21:12*	*10/09/12 22:13*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-034
Date Collected: 10/02/12 12:10
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-9
Matrix: Solid
Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	680	U	680	190	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Benzene	45	U	45	14	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Bromodichloromethane	90	U	90	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Bromoform	90	U	90	21	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Bromomethane	230	U	230	33	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
2-Butanone (MEK)	680	U	680	49	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Carbon disulfide	230	U	230	14	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Carbon tetrachloride	45	U	45	7.2	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Chlorobenzene	45	U	45	7.2	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Chloroethane	230	U	230	69	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Chloroform	45	U	45	9.9	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Chloromethane	230	U	230	16	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,1-Dichloroethane	45	U	45	19	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2-Dichloroethane	45	U	45	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,1-Dichloroethene	45	U	45	20	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2-Dichloropropane	45	U	45	9.3	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2,4-Trimethylbenzene	**18**	**J**	90	5.6	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
cis-1,3-Dichloropropene	45	U	45	8.9	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
trans-1,3-Dichloropropene	45	U	45	23	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Ethylbenzene	45	U	45	6.1	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
2-Hexanone	2300	U	2300	23	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Methylene Chloride	230	U	230	87	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	54	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Styrene	45	U	45	6.3	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,1,2,2-Tetrachloroethane	45	U	45	10	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Tetrachloroethene	45	U	45	14	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Toluene	90	U	90	19	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Trichloroethene	45	U	45	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,3,5-Trimethylbenzene	90	U	90	6.6	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Vinyl chloride	36	U	36	20	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Xylenes, Total	140	U	140	9.1	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,1,1-Trichloroethane	45	U	45	24	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,1,2-Trichloroethane	45	U	45	14	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Cyclohexane	1100	U	1100	45	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2-Dibromo-3-Chloropropane	230	U	230	56	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2-Dibromoethane	230	U	230	11	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Dichlorodifluoromethane	90	U	90	18	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
cis-1,2-Dichloroethene	45	U	45	7.8	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
trans-1,2-Dichloroethene	45	U	45	10	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Isopropylbenzene	230	U	230	7.3	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Methyl tert-butyl ether	230	U	230	8.0	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	44	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2,4-Trichlorobenzene	230	U	230	8.2	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,2-Dichlorobenzene	90	U	90	9.7	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,3-Dichlorobenzene	90	U	90	5.4	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
1,4-Dichlorobenzene	90	U	90	9.0	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Trichlorofluoromethane	90	U	90	18	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Dibromochloromethane	45	U	45	14	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
Methylcyclohexane	**85**	**J**	1100	14	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1
2-Methylnaphthalene	280	U	280	19	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-034
Date Collected: 10/02/12 12:10
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-9
Matrix: Solid
Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	280	U	280	7.6	ug/Kg	☼	10/05/12 21:12	10/09/12 22:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*39 - 128*	*10/05/12 21:12*	*10/09/12 22:37*	*1*
4-Bromofluorobenzene (Surr)	*67*		*26 - 141*	*10/05/12 21:12*	*10/09/12 22:37*	*1*
Toluene-d8 (Surr)	*72*		*33 - 134*	*10/05/12 21:12*	*10/09/12 22:37*	*1*
Dibromofluoromethane (Surr)	*74*		*30 - 122*	*10/05/12 21:12*	*10/09/12 22:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-035
Date Collected: 10/02/12 12:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-10
Matrix: Solid
Percent Solids: 91.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	650	U	650	190	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Benzene	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Bromodichloromethane	87	U	87	11	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Bromoform	87	U	87	21	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Bromomethane	220	U	220	32	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
2-Butanone (MEK)	650	U	650	47	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Carbon tetrachloride	44	U	44	7.0	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Chlorobenzene	44	U	44	7.0	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Chloroethane	220	U	220	67	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Chloroform	44	U	44	9.6	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Chloromethane	220	U	220	15	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,1-Dichloroethane	44	U	44	19	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,1-Dichloroethene	44	U	44	20	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2-Dichloropropane	44	U	44	9.0	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2,4-Trimethylbenzene	87	U	87	5.5	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
cis-1,3-Dichloropropene	44	U	44	8.6	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Ethylbenzene	44	U	44	5.9	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Methylene Chloride	220	U	220	84	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	52	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Styrene	44	U	44	6.1	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,1,2,2-Tetrachloroethane	44	U	44	9.7	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Tetrachloroethene	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Toluene	87	U	87	19	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Trichloroethene	44	U	44	11	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,3,5-Trimethylbenzene	87	U	87	6.3	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Vinyl chloride	35	U	35	20	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Xylenes, Total	130	U	130	8.8	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,1,1-Trichloroethane	44	U	44	23	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Cyclohexane	1000	U	1000	44	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2-Dibromo-3-Chloropropane	220	U	220	55	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Dichlorodifluoromethane	87	U	87	17	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
cis-1,2-Dichloroethene	44	U	44	7.5	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
trans-1,2-Dichloroethene	44	U	44	10	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Isopropylbenzene	220	U	220	7.1	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Methyl acetate	1000	U	1000	27	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Methyl tert-butyl ether	220	U	220	7.8	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2,4-Trichlorobenzene	220	U	220	8.0	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,2-Dichlorobenzene	87	U	87	9.4	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,3-Dichlorobenzene	87	U	87	5.2	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
1,4-Dichlorobenzene	87	U	87	8.7	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Trichlorofluoromethane	87	U	87	17	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
Methylcyclohexane	1000	U	1000	13	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1
2-Methylnaphthalene	270	U	270	19	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-035
Date Collected: 10/02/12 12:30
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-10
Matrix: Solid
Percent Solids: 91.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	270	U	270	7.3	ug/Kg	☼	10/05/12 21:12	10/09/12 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*39 - 128*	*10/05/12 21:12*	*10/09/12 23:01*	*1*
4-Bromofluorobenzene (Surr)	*71*		*26 - 141*	*10/05/12 21:12*	*10/09/12 23:01*	*1*
Toluene-d8 (Surr)	*73*		*33 - 134*	*10/05/12 21:12*	*10/09/12 23:01*	*1*
Dibromofluoromethane (Surr)	*70*		*30 - 122*	*10/05/12 21:12*	*10/09/12 23:01*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-007097-10212-MC-036
Date Collected: 10/02/12 12:40
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-11
Matrix: Solid
Percent Solids: 88.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	680	U	680	190	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Benzene	45	U	45	14	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Bromodichloromethane	91	U	91	11	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Bromoform	91	U	91	22	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Bromomethane	230	U *	230	33	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
2-Butanone (MEK)	680	U	680	49	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Carbon disulfide	230	U	230	14	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Carbon tetrachloride	45	U	45	7.3	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Chlorobenzene	45	U	45	7.3	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Chloroethane	230	U	230	69	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Chloroform	45	U	45	10	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Chloromethane	230	U	230	16	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,1-Dichloroethane	45	U	45	19	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2-Dichloroethane	45	U	45	11	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,1-Dichloroethene	45	U	45	20	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2-Dichloropropane	45	U	45	9.3	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2,4-Trimethylbenzene	**71**	**J**	91	5.7	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
cis-1,3-Dichloropropene	45	U	45	9.0	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
trans-1,3-Dichloropropene	45	U	45	23	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Ethylbenzene	45	U	45	6.1	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
2-Hexanone	2300	U	2300	23	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Methylene Chloride	230	U	230	88	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	55	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Styrene	45	U	45	6.4	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,1,2,2-Tetrachloroethane	45	U	45	10	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Tetrachloroethene	45	U	45	14	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Toluene	91	U	91	19	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Trichloroethene	45	U	45	11	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,3,5-Trimethylbenzene	**21**	**J**	91	6.6	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Vinyl chloride	**120**		36	20	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Xylenes, Total	140	U	140	9.2	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,1,1-Trichloroethane	45	U	45	24	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,1,2-Trichloroethane	45	U	45	14	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Cyclohexane	1100	U	1100	45	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2-Dibromo-3-Chloropropane	230	U	230	57	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2-Dibromoethane	230	U	230	11	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Dichlorodifluoromethane	91	U	91	18	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
cis-1,2-Dichloroethene	45	U	45	7.8	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
trans-1,2-Dichloroethene	45	U	45	10	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Isopropylbenzene	230	U	230	7.4	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Methyl tert-butyl ether	230	U	230	8.1	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	44	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2,4-Trichlorobenzene	230	U	230	8.3	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,2-Dichlorobenzene	91	U	91	9.8	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,3-Dichlorobenzene	91	U	91	5.5	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
1,4-Dichlorobenzene	91	U	91	9.1	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Trichlorofluoromethane	91	U	91	18	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Dibromochloromethane	45	U	45	14	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
Methylcyclohexane	1100	U	1100	14	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1
2-Methylnaphthalene	**83**	**J**	280	19	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-007097-10212-MC-036
Date Collected: 10/02/12 12:40
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-11
Matrix: Solid
Percent Solids: 88.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	11	J	280	7.6	ug/Kg	☼	10/10/12 02:38	10/10/12 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*39 - 128*	*10/10/12 02:38*	*10/10/12 20:23*	*1*
4-Bromofluorobenzene (Surr)	*88*		*26 - 141*	*10/10/12 02:38*	*10/10/12 20:23*	*1*
Toluene-d8 (Surr)	*88*		*33 - 134*	*10/10/12 02:38*	*10/10/12 20:23*	*1*
Dibromofluoromethane (Surr)	*88*		*30 - 122*	*10/10/12 02:38*	*10/10/12 20:23*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-007097-10212-MC-037
Date Collected: 10/02/12 00:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-12
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Benzene	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Bromoform	80	U	80	19	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Bromomethane	200	U *	200	29	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Carbon disulfide	200	U	200	12	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Chlorobenzene	40	U	40	6.4	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Chloroethane	200	U	200	61	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Chloroform	40	U	40	8.8	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Chloromethane	200	U	200	14	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2,4-Trimethylbenzene	**8.4**	**J**	80	5.0	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Ethylbenzene	40	U	40	5.4	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
2-Hexanone	2000	U	2000	20	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Methylene Chloride	200	U	200	77	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Styrene	40	U	40	5.6	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Tetrachloroethene	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Toluene	80	U	80	17	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Trichloroethene	40	U	40	9.7	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Vinyl chloride	32	U	32	18	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Xylenes, Total	120	U	120	8.1	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Cyclohexane	960	U	960	40	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Methyl acetate	960	U	960	25	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Dibromochloromethane	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
Methylcyclohexane	960	U	960	12	ug/Kg		10/10/12 02:38	10/10/12 20:47	1
2-Methylnaphthalene	250	U	250	17	ug/Kg		10/10/12 02:38	10/10/12 20:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TB-007097-10212-MC-037
Date Collected: 10/02/12 00:00
Date Received: 10/03/12 09:30

Lab Sample ID: 240-15886-12
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	250	U	250	6.7	ug/Kg		10/10/12 02:38	10/10/12 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*39 - 128*	*10/10/12 02:38*	*10/10/12 20:47*	*1*
4-Bromofluorobenzene (Surr)	*98*		*26 - 141*	*10/10/12 02:38*	*10/10/12 20:47*	*1*
Toluene-d8 (Surr)	*99*		*33 - 134*	*10/10/12 02:38*	*10/10/12 20:47*	*1*
Dibromofluoromethane (Surr)	*98*		*30 - 122*	*10/10/12 02:38*	*10/10/12 20:47*	*1*

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

GC/MS VOA

Prep Batch: 60396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-1	S-007097-10212-MC-026	Total/NA	Solid	5035	
240-15886-2	S-007097-10212-MC-027	Total/NA	Solid	5035	
240-15886-3	S-007097-10212-MC-028	Total/NA	Solid	5035	
240-15886-4	S-007097-10212-MC-029	Total/NA	Solid	5035	
240-15886-5	S-007097-10212-MC-030	Total/NA	Solid	5035	
240-15886-6	S-007097-10212-MC-031	Total/NA	Solid	5035	
240-15886-7	S-007097-10212-MC-032	Total/NA	Solid	5035	
240-15886-8	S-007097-10212-MC-033	Total/NA	Solid	5035	
240-15886-9	S-007097-10212-MC-034	Total/NA	Solid	5035	
240-15886-10	S-007097-10212-MC-035	Total/NA	Solid	5035	
LCS 240-60396/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 240-60396/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 60558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-1	S-007097-10212-MC-026	Total/NA	Solid	8260B	60396
240-15886-2	S-007097-10212-MC-027	Total/NA	Solid	8260B	60396
240-15886-3	S-007097-10212-MC-028	Total/NA	Solid	8260B	60396
240-15886-4	S-007097-10212-MC-029	Total/NA	Solid	8260B	60396
LCS 240-60396/2-A	Lab Control Sample	Total/NA	Solid	8260B	60396
MB 240-60396/1-A	Method Blank	Total/NA	Solid	8260B	60396

Analysis Batch: 60712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-5	S-007097-10212-MC-030	Total/NA	Solid	8260B	60396
240-15886-6	S-007097-10212-MC-031	Total/NA	Solid	8260B	60396
240-15886-7	S-007097-10212-MC-032	Total/NA	Solid	8260B	60396
240-15886-8	S-007097-10212-MC-033	Total/NA	Solid	8260B	60396
240-15886-9	S-007097-10212-MC-034	Total/NA	Solid	8260B	60396
240-15886-10	S-007097-10212-MC-035	Total/NA	Solid	8260B	60396

Prep Batch: 60727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-11	S-007097-10212-MC-036	Total/NA	Solid	5035	
240-15886-12	TB-007097-10212-MC-037	Total/NA	Solid	5035	
LCS 240-60727/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 240-60727/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 60878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-11	S-007097-10212-MC-036	Total/NA	Solid	8260B	60727
240-15886-12	TB-007097-10212-MC-037	Total/NA	Solid	8260B	60727
LCS 240-60727/2-A	Lab Control Sample	Total/NA	Solid	8260B	60727
MB 240-60727/1-A	Method Blank	Total/NA	Solid	8260B	60727

General Chemistry

Analysis Batch: 60348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-1	S-007097-10212-MC-026	Total/NA	Solid	Moisture	
240-15886-2	S-007097-10212-MC-027	Total/NA	Solid	Moisture	
240-15886-3	S-007097-10212-MC-028	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 60348 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15886-4	S-007097-10212-MC-029	Total/NA	Solid	Moisture	
240-15886-5	S-007097-10212-MC-030	Total/NA	Solid	Moisture	
240-15886-6	S-007097-10212-MC-031	Total/NA	Solid	Moisture	
240-15886-6 DU	S-007097-10212-MC-031	Total/NA	Solid	Moisture	
240-15886-7	S-007097-10212-MC-032	Total/NA	Solid	Moisture	
240-15886-8	S-007097-10212-MC-033	Total/NA	Solid	Moisture	
240-15886-9	S-007097-10212-MC-034	Total/NA	Solid	Moisture	
240-15886-10	S-007097-10212-MC-035	Total/NA	Solid	Moisture	
240-15886-11	S-007097-10212-MC-036	Total/NA	Solid	Moisture	

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-60396/1-A
Matrix: Solid
Analysis Batch: 60558

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Benzene	40	U	40	12	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Bromoform	80	U	80	19	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Bromomethane	200	U	200	29	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Carbon disulfide	200	U	200	12	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Chlorobenzene	40	U	40	6.4	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Chloroethane	200	U	200	61	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Chloroform	40	U	40	8.8	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Chloromethane	200	U	200	14	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Ethylbenzene	40	U	40	5.4	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
2-Hexanone	2000	U	2000	20	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Methylene Chloride	200	U	200	77	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Styrene	40	U	40	5.6	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Tetrachloroethene	40	U	40	12	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Toluene	80	U	80	17	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Trichloroethene	40	U	40	9.7	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Vinyl chloride	32	U	32	18	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Xylenes, Total	120	U	120	8.1	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Cyclohexane	960	U	960	40	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Methyl acetate	960	U	960	25	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Dibromochloromethane	40	U	40	12	ug/Kg		10/05/12 21:12	10/08/12 23:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-60396/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60558 — **Prep Batch: 60396**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	960	U	960	12	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
2-Methylnaphthalene	250	U	250	17	ug/Kg		10/05/12 21:12	10/08/12 23:26	1
Naphthalene	250	U	250	6.7	ug/Kg		10/05/12 21:12	10/08/12 23:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*	*10/05/12 21:12*	*10/08/12 23:26*	*1*
4-Bromofluorobenzene (Surr)	*75*		*26 - 141*	*10/05/12 21:12*	*10/08/12 23:26*	*1*
Toluene-d8 (Surr)	*75*		*33 - 134*	*10/05/12 21:12*	*10/08/12 23:26*	*1*
Dibromofluoromethane (Surr)	*77*		*30 - 122*	*10/05/12 21:12*	*10/08/12 23:26*	*1*

Lab Sample ID: LCS 240-60396/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60558 — **Prep Batch: 60396**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1000	1350		ug/Kg		135	16 - 156
Benzene	500	485		ug/Kg		97	70 - 117
Bromodichloromethane	500	340		ug/Kg		68	28 - 123
Bromoform	500	264		ug/Kg		53	10 - 117
Bromomethane	500	567		ug/Kg		113	10 - 114
2-Butanone (MEK)	1000	1130		ug/Kg		113	10 - 199
Carbon disulfide	500	450		ug/Kg		90	10 - 132
Carbon tetrachloride	500	278		ug/Kg		56	29 - 118
Chlorobenzene	500	493		ug/Kg		99	71 - 116
Chloroethane	500	550		ug/Kg		110	10 - 120
Chloroform	500	450		ug/Kg		90	63 - 116
Chloromethane	500	311		ug/Kg		62	25 - 110
1,1-Dichloroethane	500	450		ug/Kg		90	63 - 117
1,2-Dichloroethane	500	493		ug/Kg		99	68 - 119
1,1-Dichloroethene	500	609		ug/Kg		122	44 - 143
1,2-Dichloropropane	500	467		ug/Kg		93	73 - 113
1,2,4-Trimethylbenzene	500	481		ug/Kg		96	62 - 133
cis-1,3-Dichloropropene	500	309		ug/Kg		62	25 - 120
trans-1,3-Dichloropropene	500	288		ug/Kg		58	22 - 122
Ethylbenzene	500	484		ug/Kg		97	66 - 119
2-Hexanone	1000	997	J	ug/Kg		100	43 - 130
Methylene Chloride	500	541		ug/Kg		108	27 - 172
4-Methyl-2-pentanone (MIBK)	1000	962	J	ug/Kg		96	49 - 121
Styrene	500	466		ug/Kg		93	60 - 120
1,1,2,2-Tetrachloroethane	500	479		ug/Kg		96	54 - 121
Tetrachloroethene	500	544		ug/Kg		109	58 - 131
Toluene	500	487		ug/Kg		97	66 - 123
Trichloroethene	500	529		ug/Kg		106	59 - 124
1,3,5-Trimethylbenzene	500	481		ug/Kg		96	60 - 130
Vinyl chloride	500	310		ug/Kg		62	33 - 110
Xylenes, Total	1500	1460		ug/Kg		97	68 - 119
1,1,1-Trichloroethane	500	331		ug/Kg		66	38 - 122
1,1,2-Trichloroethane	500	512		ug/Kg		102	74 - 114
Cyclohexane	500	317	J	ug/Kg		63	40 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-60396/2-A
Matrix: Solid
Analysis Batch: 60558

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	500	206		ug/Kg		41	10 - 129
1,2-Dibromoethane	500	365		ug/Kg		73	47 - 123
Dichlorodifluoromethane	500	173		ug/Kg		35	10 - 110
cis-1,2-Dichloroethene	500	461		ug/Kg		92	60 - 125
trans-1,2-Dichloroethene	500	510		ug/Kg		102	58 - 121
Isopropylbenzene	500	482		ug/Kg		96	61 - 123
Methyl acetate	500	857	J	ug/Kg		171	44 - 173
Methyl tert-butyl ether	500	561		ug/Kg		112	34 - 157
1,1,2-Trichloro-1,2,2-trifluoroethane	500	546		ug/Kg		109	48 - 151
1,2,4-Trichlorobenzene	500	457		ug/Kg		91	41 - 135
1,2-Dichlorobenzene	500	520		ug/Kg		104	68 - 118
1,3-Dichlorobenzene	500	493		ug/Kg		99	66 - 121
1,4-Dichlorobenzene	500	491		ug/Kg		98	65 - 119
Trichlorofluoromethane	500	567		ug/Kg		113	17 - 145
Dibromochloromethane	500	284		ug/Kg		57	22 - 113
Methylcyclohexane	500	317	J	ug/Kg		63	41 - 133
Naphthalene	500	476		ug/Kg		95	37 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*39 - 128*
4-Bromofluorobenzene (Surr)	*78*		*26 - 141*
Toluene-d8 (Surr)	*75*		*33 - 134*
Dibromofluoromethane (Surr)	*76*		*30 - 122*

Lab Sample ID: MB 240-60727/1-A
Matrix: Solid
Analysis Batch: 60878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Benzene	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Bromoform	80	U	80	19	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Bromomethane	200	U	200	29	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Carbon disulfide	200	U	200	12	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Chlorobenzene	40	U	40	6.4	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Chloroethane	200	U	200	61	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Chloroform	40	U	40	8.8	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Chloromethane	200	U	200	14	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Ethylbenzene	40	U	40	5.4	ug/Kg		10/10/12 02:38	10/10/12 19:36	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-60727/1-A
Matrix: Solid
Analysis Batch: 60878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	2000	U	2000	20	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Methylene Chloride	200	U	200	77	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Styrene	40	U	40	5.6	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Tetrachloroethene	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Toluene	80	U	80	17	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Trichloroethene	40	U	40	9.7	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Vinyl chloride	32	U	32	18	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Xylenes, Total	120	U	120	8.1	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Cyclohexane	960	U	960	40	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Methyl acetate	960	U	960	25	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Dibromochloromethane	40	U	40	12	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Methylcyclohexane	960	U	960	12	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
2-Methylnaphthalene	250	U	250	17	ug/Kg		10/10/12 02:38	10/10/12 19:36	1
Naphthalene	250	U	250	6.7	ug/Kg		10/10/12 02:38	10/10/12 19:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*39 - 128*	*10/10/12 02:38*	*10/10/12 19:36*	*1*
4-Bromofluorobenzene (Surr)	*83*		*26 - 141*	*10/10/12 02:38*	*10/10/12 19:36*	*1*
Toluene-d8 (Surr)	*84*		*33 - 134*	*10/10/12 02:38*	*10/10/12 19:36*	*1*
Dibromofluoromethane (Surr)	*82*		*30 - 122*	*10/10/12 02:38*	*10/10/12 19:36*	*1*

Lab Sample ID: LCS 240-60727/2-A
Matrix: Solid
Analysis Batch: 60878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1000	1370		ug/Kg		137	16 - 156
Benzene	500	480		ug/Kg		96	70 - 117
Bromodichloromethane	500	411		ug/Kg		82	28 - 123
Bromoform	500	352		ug/Kg		70	10 - 117
Bromomethane	500	713	*	ug/Kg		143	10 - 114

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-60727/2-A
Matrix: Solid
Analysis Batch: 60878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone (MEK)	1000	1050		ug/Kg		105	10 - 199
Carbon disulfide	500	479		ug/Kg		96	10 - 132
Carbon tetrachloride	500	365		ug/Kg		73	29 - 118
Chlorobenzene	500	488		ug/Kg		98	71 - 116
Chloroethane	500	587		ug/Kg		117	10 - 120
Chloroform	500	462		ug/Kg		92	63 - 116
Chloromethane	500	354		ug/Kg		71	25 - 110
1,1-Dichloroethane	500	451		ug/Kg		90	63 - 117
1,2-Dichloroethane	500	489		ug/Kg		98	68 - 119
1,1-Dichloroethene	500	625		ug/Kg		125	44 - 143
1,2-Dichloropropane	500	482		ug/Kg		96	73 - 113
1,2,4-Trimethylbenzene	500	458		ug/Kg		92	62 - 133
cis-1,3-Dichloropropene	500	374		ug/Kg		75	25 - 120
trans-1,3-Dichloropropene	500	342		ug/Kg		68	22 - 122
Ethylbenzene	500	497		ug/Kg		99	66 - 119
2-Hexanone	1000	945	J	ug/Kg		94	43 - 130
Methylene Chloride	500	562		ug/Kg		112	27 - 172
4-Methyl-2-pentanone (MIBK)	1000	990	J	ug/Kg		99	49 - 121
Styrene	500	457		ug/Kg		91	60 - 120
1,1,2,2-Tetrachloroethane	500	486		ug/Kg		97	54 - 121
Tetrachloroethene	500	541		ug/Kg		108	58 - 131
Toluene	500	475		ug/Kg		95	66 - 123
Trichloroethene	500	528		ug/Kg		106	59 - 124
1,3,5-Trimethylbenzene	500	459		ug/Kg		92	60 - 130
Vinyl chloride	500	349		ug/Kg		70	33 - 110
Xylenes, Total	1500	1430		ug/Kg		95	68 - 119
1,1,1-Trichloroethane	500	376		ug/Kg		75	38 - 122
1,1,2-Trichloroethane	500	490		ug/Kg		98	74 - 114
Cyclohexane	500	334	J	ug/Kg		67	40 - 120
1,2-Dibromo-3-Chloropropane	500	332		ug/Kg		66	10 - 129
1,2-Dibromoethane	500	443		ug/Kg		89	47 - 123
Dichlorodifluoromethane	500	226		ug/Kg		45	10 - 110
cis-1,2-Dichloroethene	500	463		ug/Kg		93	60 - 125
trans-1,2-Dichloroethene	500	517		ug/Kg		103	58 - 121
Isopropylbenzene	500	472		ug/Kg		94	61 - 123
Methyl acetate	500	773	J	ug/Kg		155	44 - 173
Methyl tert-butyl ether	500	561		ug/Kg		112	34 - 157
1,1,2-Trichloro-1,2,2-trifluoroetha ne	500	547		ug/Kg		109	48 - 151
1,2,4-Trichlorobenzene	500	474		ug/Kg		95	41 - 135
1,2-Dichlorobenzene	500	505		ug/Kg		101	68 - 118
1,3-Dichlorobenzene	500	495		ug/Kg		99	66 - 121
1,4-Dichlorobenzene	500	497		ug/Kg		99	65 - 119
Trichlorofluoromethane	500	620		ug/Kg		124	17 - 145
Dibromochloromethane	500	387		ug/Kg		77	22 - 113
Methylcyclohexane	500	373	J	ug/Kg		75	41 - 133
Naphthalene	500	445		ug/Kg		89	37 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-60727/2-A
Matrix: Solid
Analysis Batch: 60878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60727

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		39 - 128
4-Bromofluorobenzene (Surr)	82		26 - 141
Toluene-d8 (Surr)	78		33 - 134
Dibromofluoromethane (Surr)	85		30 - 122

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(39-128)	(26-141)	(33-134)	(30-122)
240-15886-1	S-007097-10212-MC-026	87	83	80	77
240-15886-2	S-007097-10212-MC-027	87	80	80	75
240-15886-3	S-007097-10212-MC-028	92	87	85	81
240-15886-4	S-007097-10212-MC-029	95	87	87	85
240-15886-5	S-007097-10212-MC-030	91	85	84	83
240-15886-6	S-007097-10212-MC-031	80	73	74	74
240-15886-7	S-007097-10212-MC-032	79	67	72	72
240-15886-8	S-007097-10212-MC-033	83	76	76	74
240-15886-9	S-007097-10212-MC-034	81	67	72	74
240-15886-10	S-007097-10212-MC-035	80	71	73	70
240-15886-11	S-007097-10212-MC-036	96	88	88	88
240-15886-12	TB-007097-10212-MC-037	109	98	99	98
LCS 240-60396/2-A	Lab Control Sample	83	78	75	76
LCS 240-60727/2-A	Lab Control Sample	88	82	78	85
MB 240-60396/1-A	Method Blank	83	75	75	77
MB 240-60727/1-A	Method Blank	88	83	84	82

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Client Sample ID: S-007097-10212-MC-026 — Lab Sample ID: 240-15886-1

Date Collected: 10/02/12 09:00 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 94.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60558	10/09/12 03:58	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-027 — Lab Sample ID: 240-15886-2

Date Collected: 10/02/12 09:10 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 89.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60558	10/09/12 04:22	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-028 — Lab Sample ID: 240-15886-3

Date Collected: 10/02/12 09:30 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 84.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60558	10/09/12 04:46	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-029 — Lab Sample ID: 240-15886-4

Date Collected: 10/02/12 10:00 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 94.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60558	10/09/12 05:10	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-030 — Lab Sample ID: 240-15886-5

Date Collected: 10/02/12 10:10 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 93.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60712	10/09/12 21:02	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Client Sample ID: S-007097-10212-MC-031 — Lab Sample ID: 240-15886-6

Date Collected: 10/02/12 10:30 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 86.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60712	10/09/12 21:26	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-032 — Lab Sample ID: 240-15886-7

Date Collected: 10/02/12 11:30 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 91.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60712	10/09/12 21:49	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-033 — Lab Sample ID: 240-15886-8

Date Collected: 10/02/12 12:00 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60712	10/09/12 22:13	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-034 — Lab Sample ID: 240-15886-9

Date Collected: 10/02/12 12:10 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60712	10/09/12 22:37	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: S-007097-10212-MC-035 — Lab Sample ID: 240-15886-10

Date Collected: 10/02/12 12:30 — **Matrix: Solid**
Date Received: 10/03/12 09:30 — **Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60396	10/05/12 21:12	LM	TAL NC
Total/NA	Analysis	8260B		1	60712	10/09/12 23:01	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Client Sample ID: S-007097-10212-MC-036

Lab Sample ID: 240-15886-11

Date Collected: 10/02/12 12:40
Date Received: 10/03/12 09:30

Matrix: Solid
Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60727	10/10/12 02:38	LM	TAL NC
Total/NA	Analysis	8260B		1	60878	10/10/12 20:23	TL	TAL NC
Total/NA	Analysis	Moisture		1	60348	10/05/12 17:26	MAF	TAL NC

Client Sample ID: TB-007097-10212-MC-037

Lab Sample ID: 240-15886-12

Date Collected: 10/02/12 00:00
Date Received: 10/03/12 09:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			60727	10/10/12 02:38	LM	TAL NC
Total/NA	Analysis	8260B		1	60878	10/10/12 20:47	TL	TAL NC

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-15886-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO. PL- 08041
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 007097 - T 10/12
Project Name: PCC- West
Project Location: Pontiac
Chemistry Contact: Paul Wiseman
Sampler(s): M. Coram

Laboratory Name: Test America
Lab Contact: D. Heckler
Lab Location: Canton, OH
Lab Quote No:
SSOW ID: B080-T05-002
Cooler No: 1
Carrier: Fed Ex
Airbill No:
Date Shipped: 10/2/12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	TCL VOC *	MS/MSD Request	Comments/ Special Instructions:
1	S-007097-10212-MC-026	10/2/12	900	SO	G						1				X		
2	-027		910								1				X		
3	-028		930								1				X		
4	-029		1000								1				X		
5	-030		1010								1				X		
6	-031		1030								2				X		MS/MSD
7	-032		1130								1				X		
8	-033		1200								1				X		
9	-034		1210								1				X		*Analysis is
10	-035		1230								1				X		TCL VOCs including
11	-036		1240								1				X		both chlorinated VOCs
12	TB-007097-MC-037			QC							1				X		and gasoline
13																	range VOCs
14																	
15																	

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other:

Total Number of Containers:
All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1. Mike Coram	CRA	10/2/12	3:00PM	1. [signature]	TA	10-3-12	930
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 15886

Client CRA Site Name By: [illegible]

Cooler Received on 10-3-12 Opened on 10-3-12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # 2-11-2557 Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	☐ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp. 1.7 °C	Corrected Sample Temp. 1.7 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ Yes No
   - -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - -Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______________________________ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; ~~Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH;~~ Hydrochloric Acid Lot# 041911-HCl; ~~Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH.~~ What time was preservative added to sample(s)? ______________________

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-15886-1

Login Number: 15886

List Number: 1

Creator: Sutek, Nick

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-13660-1
Client Project/Site: 7097-T05, RACER PCC

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Authorized for release by:
8/15/2012 3:23:56 PM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions/Glossary 5
Sample Summary 6
Detection Summary 7
Method Summary 8
Client Sample Results 9
QC Association Summary 24
QC Sample Results 26
Surrogate Summary 31
Lab Chronicle 32
Certification Summary 34
Chain of Custody 35
Receipt Checklists 44

Job ID: 240-13660-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 7097-T05, RACER PCC

Report Number: 240-13660-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/31/2012, 08/01/2012 and 08/02/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8, 2.6 and 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SO-7097-073112-CB-012 (240-13729-1) and SO-7097-073112-CB-013 (240-13729-2) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. Samples SO-7097-073012-CB-007 (240-13660-1), SO-7097-073012-CB-008 (240-13660-2), SO-7097-073012-CB-009 (240-13660-3), SO-7097-073012-CB-010 (240-13660-4) and TB -7097-073012-CB-011 (240-13660-5) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 08/06/2012 and analyzed on 08/07/2012, 08/08/2012 and 08/09/2012.

Methylene Chloride was detected in method blank MB 240-53395/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Bromomethane and Chloroethane failed the recovery criteria high for LCS 240-53395/2-A.

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

Job ID: 240-13660-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GW-7097-080112-CB-023 (240-13766-1), GW-7097-080112-CB-024 (240-13766-2) and TB-7097-080112-CB-025 (240-13766-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/13/2012.

No difficulties were encountered during the VOCs analyses.

All quality control parameters were within the acceptance limits.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-13660-1	SO-7097-073012-CB-007	Solid	07/30/12 14:30	07/31/12 09:30
240-13660-2	SO-7097-073012-CB-008	Solid	07/30/12 14:50	07/31/12 09:30
240-13660-3	SO-7097-073012-CB-009	Solid	07/30/12 13:10	07/31/12 09:30
240-13660-4	SO-7097-073012-CB-010	Solid	07/30/12 13:20	07/31/12 09:30
240-13660-5	TB -7097-073012-CB-011	Solid	07/30/12 00:00	07/31/12 09:30
240-13729-1	SO-7097-073112-CB-012	Solid	07/31/12 09:25	08/01/12 09:30
240-13729-2	SO-7097-073112-CB-013	Solid	07/31/12 10:00	08/01/12 09:30
240-13766-1	GW-7097-080112-CB-023	Water	08/01/12 10:45	08/02/12 09:00
240-13766-2	GW-7097-080112-CB-024	Water	08/01/12 10:55	08/02/12 09:00
240-13766-3	TB-7097-080112-CB-025	Water	08/01/12 00:00	08/02/12 09:00

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Client Sample ID: SO-7097-073012-CB-007 — Lab Sample ID: 240-13660-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	170	J	620	170	ug/Kg	1	☼	8260B	Total/NA
Methylene Chloride	94	J B	210	79	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: SO-7097-073012-CB-008 — Lab Sample ID: 240-13660-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	200		78	4.8	ug/Kg	1	☼	8260B	Total/NA
Ethylbenzene	19	J	39	5.2	ug/Kg	1	☼	8260B	Total/NA
Methylene Chloride	110	J B	190	75	ug/Kg	1	☼	8260B	Total/NA
Styrene	8.8	J	39	5.4	ug/Kg	1	☼	8260B	Total/NA
Toluene	18	J	78	16	ug/Kg	1	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	74	J	78	5.6	ug/Kg	1	☼	8260B	Total/NA
Xylenes, Total	78	J	120	7.9	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: SO-7097-073012-CB-009 — Lab Sample ID: 240-13660-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	110	J B	210	81	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: SO-7097-073012-CB-010 — Lab Sample ID: 240-13660-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	130	J B	210	82	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: TB -7097-073012-CB-011 — Lab Sample ID: 240-13660-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	110	J B	200	77	ug/Kg	1		8260B	Total/NA

Client Sample ID: SO-7097-073112-CB-012 — Lab Sample ID: 240-13729-1

No Detections

Client Sample ID: SO-7097-073112-CB-013 — Lab Sample ID: 240-13729-2

No Detections

Client Sample ID: GW-7097-080112-CB-023 — Lab Sample ID: 240-13766-1

No Detections

Client Sample ID: GW-7097-080112-CB-024 — Lab Sample ID: 240-13766-2

No Detections

Client Sample ID: TB-7097-080112-CB-025 — Lab Sample ID: 240-13766-3

No Detections

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
Moisture	Percent Moisture	EPA	TAL NC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073012-CB-007
Date Collected: 07/30/12 14:30
Date Received: 07/31/12 09:30

Lab Sample ID: 240-13660-1
Matrix: Solid
Percent Solids: 97.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**170**	**J**	620	170	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Benzene	41	U	41	12	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Bromodichloromethane	82	U	82	10	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Bromoform	82	U	82	20	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Bromomethane	210	U *	210	30	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
2-Butanone (MEK)	620	U	620	44	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Carbon disulfide	210	U	210	12	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Carbon tetrachloride	41	U	41	6.6	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Chlorobenzene	41	U	41	6.6	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Chloroethane	210	U *	210	63	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Chloroform	41	U	41	9.0	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Chloromethane	210	U	210	14	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,1-Dichloroethane	41	U	41	17	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2-Dichloroethane	41	U	41	10	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,1-Dichloroethene	41	U	41	19	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2-Dichloropropane	41	U	41	8.4	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2,4-Trimethylbenzene	82	U	82	5.1	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
cis-1,3-Dichloropropene	41	U	41	8.1	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
trans-1,3-Dichloropropene	41	U	41	21	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Ethylbenzene	41	U	41	5.6	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
2-Hexanone	2100	U	2100	21	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Methylene Chloride	**94**	**J B**	210	79	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
4-Methyl-2-pentanone (MIBK)	2100	U	2100	49	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Styrene	41	U	41	5.8	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,1,2,2-Tetrachloroethane	41	U	41	9.2	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Tetrachloroethene	41	U	41	12	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Toluene	82	U	82	17	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Trichloroethene	41	U	41	10	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,3,5-Trimethylbenzene	82	U	82	6.0	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Vinyl chloride	33	U	33	19	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Xylenes, Total	120	U	120	8.3	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,1,1-Trichloroethane	41	U	41	22	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,1,2-Trichloroethane	41	U	41	12	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Cyclohexane	990	U	990	41	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2-Dibromo-3-Chloropropane	210	U	210	51	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2-Dibromoethane	210	U	210	10	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Dichlorodifluoromethane	82	U	82	16	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
cis-1,2-Dichloroethene	41	U	41	7.1	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
trans-1,2-Dichloroethene	41	U	41	9.5	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Isopropylbenzene	210	U	210	6.7	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Methyl acetate	990	U	990	26	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Methyl tert-butyl ether	210	U	210	7.3	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	210	40	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2,4-Trichlorobenzene	210	U	210	7.5	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,2-Dichlorobenzene	82	U	82	8.8	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,3-Dichlorobenzene	82	U	82	4.9	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
1,4-Dichlorobenzene	82	U	82	8.2	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Trichlorofluoromethane	82	U	82	16	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Dibromochloromethane	41	U	41	12	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1
Methylcyclohexane	990	U	990	12	ug/Kg	☼	08/06/12 14:40	08/07/12 22:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		39 - 128	08/06/12 14:40	08/07/12 22:57	1
4-Bromofluorobenzene (Surr)	98		26 - 141	08/06/12 14:40	08/07/12 22:57	1
Toluene-d8 (Surr)	96		33 - 134	08/06/12 14:40	08/07/12 22:57	1
Dibromofluoromethane (Surr)	93		30 - 122	08/06/12 14:40	08/07/12 22:57	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073012-CB-008
Date Collected: 07/30/12 14:50
Date Received: 07/31/12 09:30

Lab Sample ID: 240-13660-2
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	580	U	580	160	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Benzene	39	U	39	12	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Bromodichloromethane	78	U	78	9.6	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Bromoform	78	U	78	18	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Bromomethane	190	U *	190	28	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
2-Butanone (MEK)	580	U	580	42	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Carbon disulfide	190	U	190	12	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Carbon tetrachloride	39	U	39	6.2	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Chlorobenzene	39	U	39	6.2	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Chloroethane	190	U *	190	59	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Chloroform	39	U	39	8.5	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Chloromethane	190	U	190	14	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,1-Dichloroethane	39	U	39	16	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2-Dichloroethane	39	U	39	9.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,1-Dichloroethene	39	U	39	17	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2-Dichloropropane	39	U	39	7.9	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2,4-Trimethylbenzene	**200**		78	4.8	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
cis-1,3-Dichloropropene	39	U	39	7.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
trans-1,3-Dichloropropene	39	U	39	19	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Ethylbenzene	**19**	**J**	39	5.2	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
2-Hexanone	1900	U	1900	19	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Methylene Chloride	**110**	**J B**	190	75	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
4-Methyl-2-pentanone (MIBK)	1900	U	1900	47	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Styrene	**8.8**	**J**	39	5.4	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,1,2,2-Tetrachloroethane	39	U	39	8.6	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Tetrachloroethene	39	U	39	12	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Toluene	**18**	**J**	78	16	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Trichloroethene	39	U	39	9.4	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,3,5-Trimethylbenzene	**74**	**J**	78	5.6	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Vinyl chloride	31	U	31	17	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Xylenes, Total	**78**	**J**	120	7.9	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,1,1-Trichloroethane	39	U	39	20	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,1,2-Trichloroethane	39	U	39	12	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Cyclohexane	930	U	930	39	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2-Dibromo-3-Chloropropane	190	U	190	48	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2-Dibromoethane	190	U	190	9.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Dichlorodifluoromethane	78	U	78	16	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
cis-1,2-Dichloroethene	39	U	39	6.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
trans-1,2-Dichloroethene	39	U	39	8.9	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Isopropylbenzene	190	U	190	6.3	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Methyl acetate	930	U	930	24	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Methyl tert-butyl ether	190	U	190	6.9	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	190	U	190	38	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2,4-Trichlorobenzene	190	U	190	7.1	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,2-Dichlorobenzene	78	U	78	8.3	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,3-Dichlorobenzene	78	U	78	4.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
1,4-Dichlorobenzene	78	U	78	7.8	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Trichlorofluoromethane	78	U	78	16	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Dibromochloromethane	39	U	39	12	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1
Methylcyclohexane	930	U	930	12	ug/Kg	☼	08/06/12 14:40	08/07/12 23:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		39 - 128	08/06/12 14:40	08/07/12 23:22	1
4-Bromofluorobenzene (Surr)	98		26 - 141	08/06/12 14:40	08/07/12 23:22	1
Toluene-d8 (Surr)	96		33 - 134	08/06/12 14:40	08/07/12 23:22	1
Dibromofluoromethane (Surr)	92		30 - 122	08/06/12 14:40	08/07/12 23:22	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073012-CB-009
Date Collected: 07/30/12 13:10
Date Received: 07/31/12 09:30

Lab Sample ID: 240-13660-3
Matrix: Solid
Percent Solids: 94.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	630	U	630	180	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Benzene	42	U	42	13	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Bromodichloromethane	85	U	85	10	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Bromoform	85	U	85	20	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Bromomethane	210	U *	210	31	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
2-Butanone (MEK)	630	U	630	45	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Carbon disulfide	210	U	210	13	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Carbon tetrachloride	42	U	42	6.8	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Chlorobenzene	42	U	42	6.8	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Chloroethane	210	U *	210	64	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Chloroform	42	U	42	9.3	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Chloromethane	210	U	210	15	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,1-Dichloroethane	42	U	42	18	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2-Dichloroethane	42	U	42	11	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,1-Dichloroethene	42	U	42	19	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2-Dichloropropane	42	U	42	8.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2,4-Trimethylbenzene	85	U	85	5.3	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
cis-1,3-Dichloropropene	42	U	42	8.3	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
trans-1,3-Dichloropropene	42	U	42	21	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Ethylbenzene	42	U	42	5.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
2-Hexanone	2100	U	2100	21	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Methylene Chloride	**110**	**J B**	210	81	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
4-Methyl-2-pentanone (MIBK)	2100	U	2100	51	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Styrene	42	U	42	5.9	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,1,2,2-Tetrachloroethane	42	U	42	9.4	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Tetrachloroethene	42	U	42	13	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Toluene	85	U	85	18	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Trichloroethene	42	U	42	10	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,3,5-Trimethylbenzene	85	U	85	6.1	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Vinyl chloride	34	U	34	19	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Xylenes, Total	130	U	130	8.6	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,1,1-Trichloroethane	42	U	42	22	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,1,2-Trichloroethane	42	U	42	13	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Cyclohexane	1000	U	1000	42	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2-Dibromo-3-Chloropropane	210	U	210	53	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2-Dibromoethane	210	U	210	11	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Dichlorodifluoromethane	85	U	85	17	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
cis-1,2-Dichloroethene	42	U	42	7.3	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
trans-1,2-Dichloroethene	42	U	42	9.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Isopropylbenzene	210	U	210	6.9	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Methyl acetate	1000	U	1000	26	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Methyl tert-butyl ether	210	U	210	7.5	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	210	41	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2,4-Trichlorobenzene	210	U	210	7.7	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,2-Dichlorobenzene	85	U	85	9.1	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,3-Dichlorobenzene	85	U	85	5.1	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
1,4-Dichlorobenzene	85	U	85	8.5	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Trichlorofluoromethane	85	U	85	17	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Dibromochloromethane	42	U	42	13	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1
Methylcyclohexane	1000	U	1000	13	ug/Kg	☼	08/06/12 14:40	08/07/12 23:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		39 - 128	08/06/12 14:40	08/07/12 23:47	1
4-Bromofluorobenzene (Surr)	96		26 - 141	08/06/12 14:40	08/07/12 23:47	1
Toluene-d8 (Surr)	92		33 - 134	08/06/12 14:40	08/07/12 23:47	1
Dibromofluoromethane (Surr)	93		30 - 122	08/06/12 14:40	08/07/12 23:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073012-CB-010
Date Collected: 07/30/12 13:20
Date Received: 07/31/12 09:30

Lab Sample ID: 240-13660-4
Matrix: Solid
Percent Solids: 94.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	640	U	640	180	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Benzene	43	U	43	13	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Bromodichloromethane	85	U	85	11	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Bromoform	85	U	85	20	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Bromomethane	210	U *	210	31	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
2-Butanone (MEK)	640	U	640	46	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Carbon disulfide	210	U	210	13	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Carbon tetrachloride	43	U	43	6.8	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Chlorobenzene	43	U	43	6.8	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Chloroethane	210	U *	210	65	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Chloroform	43	U	43	9.4	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Chloromethane	210	U	210	15	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,1-Dichloroethane	43	U	43	18	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2-Dichloroethane	43	U	43	11	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,1-Dichloroethene	43	U	43	19	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2-Dichloropropane	43	U	43	8.7	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2,4-Trimethylbenzene	85	U	85	5.3	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
cis-1,3-Dichloropropene	43	U	43	8.4	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
trans-1,3-Dichloropropene	43	U	43	21	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Ethylbenzene	43	U	43	5.8	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
2-Hexanone	2100	U	2100	21	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Methylene Chloride	**130**	**J B**	210	82	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
4-Methyl-2-pentanone (MIBK)	2100	U	2100	51	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Styrene	43	U	43	6.0	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,1,2,2-Tetrachloroethane	43	U	43	9.5	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Tetrachloroethene	43	U	43	13	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Toluene	85	U	85	18	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Trichloroethene	43	U	43	10	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,3,5-Trimethylbenzene	85	U	85	6.2	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Vinyl chloride	34	U	34	19	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Xylenes, Total	130	U	130	8.6	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,1,1-Trichloroethane	43	U	43	22	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,1,2-Trichloroethane	43	U	43	13	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Cyclohexane	1000	U	1000	43	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2-Dibromo-3-Chloropropane	210	U	210	53	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2-Dibromoethane	210	U	210	11	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Dichlorodifluoromethane	85	U	85	17	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
cis-1,2-Dichloroethene	43	U	43	7.4	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
trans-1,2-Dichloroethene	43	U	43	9.8	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Isopropylbenzene	210	U	210	6.9	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Methyl acetate	1000	U	1000	27	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Methyl tert-butyl ether	210	U	210	7.6	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	210	42	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2,4-Trichlorobenzene	210	U	210	7.8	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,2-Dichlorobenzene	85	U	85	9.2	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,3-Dichlorobenzene	85	U	85	5.1	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
1,4-Dichlorobenzene	85	U	85	8.5	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Trichlorofluoromethane	85	U	85	17	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Dibromochloromethane	43	U	43	13	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1
Methylcyclohexane	1000	U	1000	13	ug/Kg	☼	08/06/12 14:40	08/08/12 00:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		39 - 128	08/06/12 14:40	08/08/12 00:12	1
4-Bromofluorobenzene (Surr)	107		26 - 141	08/06/12 14:40	08/08/12 00:12	1
Toluene-d8 (Surr)	104		33 - 134	08/06/12 14:40	08/08/12 00:12	1
Dibromofluoromethane (Surr)	103		30 - 122	08/06/12 14:40	08/08/12 00:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB -7097-073012-CB-011
Date Collected: 07/30/12 00:00
Date Received: 07/31/12 09:30

Lab Sample ID: 240-13660-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Benzene	40	U	40	12	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Bromoform	80	U	80	19	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Bromomethane	200	U *	200	29	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Carbon disulfide	200	U	200	12	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Chlorobenzene	40	U	40	6.4	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Chloroethane	200	U *	200	61	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Chloroform	40	U	40	8.8	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Chloromethane	200	U	200	14	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Ethylbenzene	40	U	40	5.4	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
2-Hexanone	2000	U	2000	20	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Methylene Chloride	**110**	**J B**	200	77	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Styrene	40	U	40	5.6	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Tetrachloroethene	40	U	40	12	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Toluene	80	U	80	17	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Trichloroethene	40	U	40	9.7	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Vinyl chloride	32	U	32	18	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Xylenes, Total	120	U	120	8.1	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Cyclohexane	960	U	960	40	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Methyl acetate	960	U	960	25	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Dibromochloromethane	40	U	40	12	ug/Kg		08/06/12 14:40	08/08/12 00:37	1
Methylcyclohexane	960	U	960	12	ug/Kg		08/06/12 14:40	08/08/12 00:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		39 - 128	08/06/12 14:40	08/08/12 00:37	1
4-Bromofluorobenzene (Surr)	104		26 - 141	08/06/12 14:40	08/08/12 00:37	1
Toluene-d8 (Surr)	101		33 - 134	08/06/12 14:40	08/08/12 00:37	1
Dibromofluoromethane (Surr)	100		30 - 122	08/06/12 14:40	08/08/12 00:37	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073112-CB-012
Date Collected: 07/31/12 09:25
Date Received: 08/01/12 09:30

Lab Sample ID: 240-13729-1
Matrix: Solid
Percent Solids: 94.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	42	U	42	13	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
1,2,4-Trimethylbenzene	84	U	84	5.3	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
Ethylbenzene	42	U	42	5.7	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
Toluene	84	U	84	18	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
1,3,5-Trimethylbenzene	84	U	84	6.1	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
Xylenes, Total	130	U	130	8.5	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
Methyl tert-butyl ether	210	U	210	7.5	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
2-Methylnaphthalene	260	U	260	18	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1
Naphthalene	260	U	260	7.0	ug/Kg	☼	08/06/12 11:06	08/09/12 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*39 - 128*	*08/06/12 11:06*	*08/09/12 04:10*	*1*
4-Bromofluorobenzene (Surr)	*94*		*26 - 141*	*08/06/12 11:06*	*08/09/12 04:10*	*1*
Toluene-d8 (Surr)	*94*		*33 - 134*	*08/06/12 11:06*	*08/09/12 04:10*	*1*
Dibromofluoromethane (Surr)	*91*		*30 - 122*	*08/06/12 11:06*	*08/09/12 04:10*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073112-CB-013
Date Collected: 07/31/12 10:00
Date Received: 08/01/12 09:30

Lab Sample ID: 240-13729-2
Matrix: Solid
Percent Solids: 94.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	42	U	42	13	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
1,2,4-Trimethylbenzene	85	U	85	5.3	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
Ethylbenzene	42	U	42	5.7	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
Toluene	85	U	85	18	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
1,3,5-Trimethylbenzene	85	U	85	6.1	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
Xylenes, Total	130	U	130	8.6	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
Methyl tert-butyl ether	210	U	210	7.5	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
2-Methylnaphthalene	260	U	260	18	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1
Naphthalene	260	U	260	7.1	ug/Kg	☼	08/06/12 11:06	08/09/12 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*39 - 128*	*08/06/12 11:06*	*08/09/12 04:35*	*1*
4-Bromofluorobenzene (Surr)	*94*		*26 - 141*	*08/06/12 11:06*	*08/09/12 04:35*	*1*
Toluene-d8 (Surr)	*90*		*33 - 134*	*08/06/12 11:06*	*08/09/12 04:35*	*1*
Dibromofluoromethane (Surr)	*87*		*30 - 122*	*08/06/12 11:06*	*08/09/12 04:35*	*1*

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-7097-080112-CB-023
Date Collected: 08/01/12 10:45
Date Received: 08/02/12 09:00

Lab Sample ID: 240-13766-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			08/13/12 20:16	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/13/12 20:16	1
Toluene	1.0	U	1.0	0.13	ug/L			08/13/12 20:16	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			08/13/12 20:16	1
Methyl tert-butyl ether	5.0	U	5.0	0.17	ug/L			08/13/12 20:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.12	ug/L			08/13/12 20:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.096	ug/L			08/13/12 20:16	1
2-Methylnaphthalene	5.0	U	5.0	0.47	ug/L			08/13/12 20:16	1
Naphthalene	5.0	U	5.0	0.24	ug/L			08/13/12 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*08/13/12 20:16*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*		*08/13/12 20:16*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*08/13/12 20:16*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*08/13/12 20:16*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-7097-080112-CB-024
Date Collected: 08/01/12 10:55
Date Received: 08/02/12 09:00

Lab Sample ID: 240-13766-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			08/13/12 18:24	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/13/12 18:24	1
Toluene	1.0	U	1.0	0.13	ug/L			08/13/12 18:24	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			08/13/12 18:24	1
Methyl tert-butyl ether	5.0	U	5.0	0.17	ug/L			08/13/12 18:24	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.12	ug/L			08/13/12 18:24	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.096	ug/L			08/13/12 18:24	1
2-Methylnaphthalene	5.0	U	5.0	0.47	ug/L			08/13/12 18:24	1
Naphthalene	5.0	U	5.0	0.24	ug/L			08/13/12 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*08/13/12 18:24*	*1*
4-Bromofluorobenzene (Surr)	*96*		*66 - 117*		*08/13/12 18:24*	*1*
Toluene-d8 (Surr)	*95*		*74 - 115*		*08/13/12 18:24*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*08/13/12 18:24*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-7097-080112-CB-025
Date Collected: 08/01/12 00:00
Date Received: 08/02/12 09:00

Lab Sample ID: 240-13766-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			08/13/12 18:46	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/13/12 18:46	1
Toluene	1.0	U	1.0	0.13	ug/L			08/13/12 18:46	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			08/13/12 18:46	1
Methyl tert-butyl ether	5.0	U	5.0	0.17	ug/L			08/13/12 18:46	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.12	ug/L			08/13/12 18:46	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.096	ug/L			08/13/12 18:46	1
2-Methylnaphthalene	5.0	U	5.0	0.47	ug/L			08/13/12 18:46	1
Naphthalene	5.0	U	5.0	0.24	ug/L			08/13/12 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*63 - 129*		*08/13/12 18:46*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*		*08/13/12 18:46*	*1*
Toluene-d8 (Surr)	*92*		*74 - 115*		*08/13/12 18:46*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 121*		*08/13/12 18:46*	*1*

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

GC/MS VOA

Prep Batch: 53354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13729-1	SO-7097-073112-CB-012	Total/NA	Solid	5035	
240-13729-2	SO-7097-073112-CB-013	Total/NA	Solid	5035	
LCS 240-53354/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 240-53354/1-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 53395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13660-1	SO-7097-073012-CB-007	Total/NA	Solid	5035	
240-13660-2	SO-7097-073012-CB-008	Total/NA	Solid	5035	
240-13660-3	SO-7097-073012-CB-009	Total/NA	Solid	5035	
240-13660-4	SO-7097-073012-CB-010	Total/NA	Solid	5035	
240-13660-5	TB -7097-073012-CB-011	Total/NA	Solid	5035	
LCS 240-53395/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 240-53395/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 53623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13660-1	SO-7097-073012-CB-007	Total/NA	Solid	8260B	53395
240-13660-2	SO-7097-073012-CB-008	Total/NA	Solid	8260B	53395
240-13660-3	SO-7097-073012-CB-009	Total/NA	Solid	8260B	53395
240-13660-4	SO-7097-073012-CB-010	Total/NA	Solid	8260B	53395
240-13660-5	TB -7097-073012-CB-011	Total/NA	Solid	8260B	53395
LCS 240-53395/2-A	Lab Control Sample	Total/NA	Solid	8260B	53395
MB 240-53395/1-A	Method Blank	Total/NA	Solid	8260B	53395

Analysis Batch: 53777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13729-1	SO-7097-073112-CB-012	Total/NA	Solid	8260B	53354
240-13729-2	SO-7097-073112-CB-013	Total/NA	Solid	8260B	53354
LCS 240-53354/2-A	Lab Control Sample	Total/NA	Solid	8260B	53354
MB 240-53354/1-A	Method Blank	Total/NA	Solid	8260B	53354

Analysis Batch: 54194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13766-1	GW-7097-080112-CB-023	Total/NA	Water	8260B	
240-13766-1 MS	GW-7097-080112-CB-023	Total/NA	Water	8260B	
240-13766-1 MSD	GW-7097-080112-CB-023	Total/NA	Water	8260B	
240-13766-2	GW-7097-080112-CB-024	Total/NA	Water	8260B	
240-13766-3	TB-7097-080112-CB-025	Total/NA	Water	8260B	
LCS 240-54194/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-54194/5	Method Blank	Total/NA	Water	8260B	

General Chemistry

Analysis Batch: 52965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13660-1	SO-7097-073012-CB-007	Total/NA	Solid	Moisture	
240-13660-1 DU	SO-7097-073012-CB-007	Total/NA	Solid	Moisture	
240-13660-2	SO-7097-073012-CB-008	Total/NA	Solid	Moisture	
240-13660-3	SO-7097-073012-CB-009	Total/NA	Solid	Moisture	
240-13660-4	SO-7097-073012-CB-010	Total/NA	Solid	Moisture	
240-13729-1	SO-7097-073112-CB-012	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 52965 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13729-1 DU	SO-7097-073112-CB-012	Total/NA	Solid	Moisture	
240-13729-2	SO-7097-073112-CB-013	Total/NA	Solid	Moisture	

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-53354/1-A
Matrix: Solid
Analysis Batch: 53777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
2-Methylnaphthalene	250	U	250	17	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Naphthalene	250	U	250	6.7	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Ethylbenzene	40	U	40	5.4	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Toluene	80	U	80	17	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Xylenes, Total	120	U	120	8.1	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		08/06/12 11:06	08/08/12 19:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*39 - 128*	*08/06/12 11:06*	*08/08/12 19:21*	*1*
4-Bromofluorobenzene (Surr)	*90*		*26 - 141*	*08/06/12 11:06*	*08/08/12 19:21*	*1*
Toluene-d8 (Surr)	*88*		*33 - 134*	*08/06/12 11:06*	*08/08/12 19:21*	*1*
Dibromofluoromethane (Surr)	*88*		*30 - 122*	*08/06/12 11:06*	*08/08/12 19:21*	*1*

Lab Sample ID: LCS 240-53354/2-A
Matrix: Solid
Analysis Batch: 53777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	500	519		ug/Kg		104	70 - 117
Naphthalene	500	548		ug/Kg		110	37 - 126
1,2,4-Trimethylbenzene	500	482		ug/Kg		96	62 - 133
Ethylbenzene	500	515		ug/Kg		103	66 - 119
Toluene	500	516		ug/Kg		103	66 - 123
1,3,5-Trimethylbenzene	500	472		ug/Kg		94	60 - 130
Xylenes, Total	1500	1500		ug/Kg		100	68 - 119
Methyl tert-butyl ether	500	601		ug/Kg		120	34 - 157

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*39 - 128*
4-Bromofluorobenzene (Surr)	*93*		*26 - 141*
Toluene-d8 (Surr)	*87*		*33 - 134*
Dibromofluoromethane (Surr)	*90*		*30 - 122*

Lab Sample ID: MB 240-53395/1-A
Matrix: Solid
Analysis Batch: 53623

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Benzene	40	U	40	12	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Bromoform	80	U	80	19	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Bromomethane	200	U	200	29	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Carbon disulfide	200	U	200	12	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		08/06/12 14:40	08/07/12 22:33	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-53395/1-A
Matrix: Solid
Analysis Batch: 53623

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	40	U	40	6.4	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Chloroethane	200	U	200	61	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Chloroform	40	U	40	8.8	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Chloromethane	200	U	200	14	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Ethylbenzene	40	U	40	5.4	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
2-Hexanone	2000	U	2000	20	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Methylene Chloride	110	J	200	77	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Styrene	40	U	40	5.6	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Tetrachloroethene	40	U	40	12	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Toluene	80	U	80	17	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Trichloroethene	40	U	40	9.7	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Vinyl chloride	32	U	32	18	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Xylenes, Total	120	U	120	8.1	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Cyclohexane	960	U	960	40	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Methyl acetate	960	U	960	25	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Dibromochloromethane	40	U	40	12	ug/Kg		08/06/12 14:40	08/07/12 22:33	1
Methylcyclohexane	960	U	960	12	ug/Kg		08/06/12 14:40	08/07/12 22:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*39 - 128*	*08/06/12 14:40*	*08/07/12 22:33*	*1*
4-Bromofluorobenzene (Surr)	*94*		*26 - 141*	*08/06/12 14:40*	*08/07/12 22:33*	*1*
Toluene-d8 (Surr)	*90*		*33 - 134*	*08/06/12 14:40*	*08/07/12 22:33*	*1*
Dibromofluoromethane (Surr)	*88*		*30 - 122*	*08/06/12 14:40*	*08/07/12 22:33*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-53395/2-A
Matrix: Solid
Analysis Batch: 53623

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1000	1240		ug/Kg		124	16 - 156
Benzene	500	526		ug/Kg		105	70 - 117
Bromodichloromethane	500	445		ug/Kg		89	28 - 123
Bromoform	500	352		ug/Kg		70	10 - 117
Bromomethane	500	770	*	ug/Kg		154	10 - 114
2-Butanone (MEK)	1000	1140		ug/Kg		114	10 - 199
Carbon disulfide	500	559		ug/Kg		112	10 - 132
Carbon tetrachloride	500	497		ug/Kg		99	29 - 118
Chlorobenzene	500	512		ug/Kg		102	71 - 116
Chloroethane	500	713	*	ug/Kg		143	10 - 120
Chloroform	500	490		ug/Kg		98	63 - 116
Chloromethane	500	433		ug/Kg		87	25 - 110
1,1-Dichloroethane	500	495		ug/Kg		99	63 - 117
1,2-Dichloroethane	500	506		ug/Kg		101	68 - 119
1,1-Dichloroethene	500	702		ug/Kg		140	44 - 143
1,2-Dichloropropane	500	503		ug/Kg		101	73 - 113
1,2,4-Trimethylbenzene	500	500		ug/Kg		100	62 - 133
cis-1,3-Dichloropropene	500	441		ug/Kg		88	25 - 120
trans-1,3-Dichloropropene	500	442		ug/Kg		88	22 - 122
Ethylbenzene	500	511		ug/Kg		102	66 - 119
2-Hexanone	1000	953	J	ug/Kg		95	43 - 130
Methylene Chloride	500	781		ug/Kg		156	27 - 172
4-Methyl-2-pentanone (MIBK)	1000	1020	J	ug/Kg		102	49 - 121
Styrene	500	495		ug/Kg		99	60 - 120
1,1,2,2-Tetrachloroethane	500	516		ug/Kg		103	54 - 121
Tetrachloroethene	500	520		ug/Kg		104	58 - 131
Toluene	500	513		ug/Kg		103	66 - 123
Trichloroethene	500	513		ug/Kg		103	59 - 124
1,3,5-Trimethylbenzene	500	493		ug/Kg		99	60 - 130
Vinyl chloride	500	437		ug/Kg		87	33 - 110
Xylenes, Total	1500	1530		ug/Kg		102	68 - 119
1,1,1-Trichloroethane	500	479		ug/Kg		96	38 - 122
1,1,2-Trichloroethane	500	535		ug/Kg		107	74 - 114
Cyclohexane	500	296	J	ug/Kg		59	40 - 120
1,2-Dibromo-3-Chloropropane	500	429		ug/Kg		86	10 - 129
1,2-Dibromoethane	500	504		ug/Kg		101	47 - 123
Dichlorodifluoromethane	500	348		ug/Kg		70	10 - 110
cis-1,2-Dichloroethene	500	485		ug/Kg		97	60 - 125
trans-1,2-Dichloroethene	500	575		ug/Kg		115	58 - 121
Isopropylbenzene	500	521		ug/Kg		104	61 - 123
Methyl acetate	500	793	J	ug/Kg		159	44 - 173
Methyl tert-butyl ether	500	604		ug/Kg		121	34 - 157
1,1,2-Trichloro-1,2,2-trifluoroetha ne	500	720		ug/Kg		144	48 - 151
1,2,4-Trichlorobenzene	500	516		ug/Kg		103	41 - 135
1,2-Dichlorobenzene	500	492		ug/Kg		98	68 - 118
1,3-Dichlorobenzene	500	499		ug/Kg		100	66 - 121
1,4-Dichlorobenzene	500	482		ug/Kg		96	65 - 119
Trichlorofluoromethane	500	697		ug/Kg		139	17 - 145
Dibromochloromethane	500	392		ug/Kg		78	22 - 113

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-53395/2-A
Matrix: Solid
Analysis Batch: 53623

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	500	461	J	ug/Kg		92	41 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*39 - 128*
4-Bromofluorobenzene (Surr)	*92*		*26 - 141*
Toluene-d8 (Surr)	*85*		*33 - 134*
Dibromofluoromethane (Surr)	*88*		*30 - 122*

Lab Sample ID: MB 240-54194/5
Matrix: Water
Analysis Batch: 54194

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.13	ug/L			08/13/12 12:48	1
2-Methylnaphthalene	5.0	U	5.0	0.47	ug/L			08/13/12 12:48	1
Naphthalene	5.0	U	5.0	0.24	ug/L			08/13/12 12:48	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.12	ug/L			08/13/12 12:48	1
Ethylbenzene	1.0	U	1.0	0.17	ug/L			08/13/12 12:48	1
Toluene	1.0	U	1.0	0.13	ug/L			08/13/12 12:48	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.096	ug/L			08/13/12 12:48	1
Xylenes, Total	2.0	U	2.0	0.28	ug/L			08/13/12 12:48	1
Methyl tert-butyl ether	5.0	U	5.0	0.17	ug/L			08/13/12 12:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*63 - 129*		*08/13/12 12:48*	*1*
4-Bromofluorobenzene (Surr)	*91*		*66 - 117*		*08/13/12 12:48*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*08/13/12 12:48*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 121*		*08/13/12 12:48*	*1*

Lab Sample ID: LCS 240-54194/4
Matrix: Water
Analysis Batch: 54194

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.2		ug/L		102	83 - 112
m-Xylene & p-Xylene	20.0	20.6		ug/L		103	83 - 113
o-Xylene	10.0	10.0		ug/L		100	83 - 113
Naphthalene	10.0	9.70		ug/L		97	32 - 141
1,2,4-Trimethylbenzene	10.0	9.86		ug/L		99	76 - 120
Ethylbenzene	10.0	10.1		ug/L		101	83 - 112
Toluene	10.0	9.61		ug/L		96	84 - 111
1,3,5-Trimethylbenzene	10.0	9.82		ug/L		98	72 - 118
Xylenes, Total	30.0	30.6		ug/L		102	83 - 112
Methyl tert-butyl ether	10.0	9.71		ug/L		97	52 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*63 - 129*
4-Bromofluorobenzene (Surr)	*97*		*66 - 117*
Toluene-d8 (Surr)	*93*		*74 - 115*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-54194/4
Matrix: Water
Analysis Batch: 54194

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*103*		*75 - 121*

Lab Sample ID: 240-13766-1 MS
Matrix: Water
Analysis Batch: 54194

Client Sample ID: GW-7097-080112-CB-023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.0	U	10.0	9.74		ug/L		97	72 - 121
Ethylbenzene	1.0	U	10.0	9.52		ug/L		95	75 - 116
Toluene	1.0	U	10.0	9.17		ug/L		92	78 - 114
Xylenes, Total	2.0	U	30.0	28.6		ug/L			
Methyl tert-butyl ether	5.0	U	10.0	9.12		ug/L		91	46 - 144
m-Xylene & p-Xylene	2.0		20.0	19.0		ug/L		95	75 - 117
o-Xylene	1.0		10.0	9.55		ug/L		95	76 - 116
1,2,4-Trimethylbenzene	1.0	U	10.0	9.34		ug/L		93	67 - 124
1,3,5-Trimethylbenzene	1.0	U	10.0	9.28		ug/L		93	63 - 121
Naphthalene	5.0	U	10.0	9.99		ug/L		100	15 - 158

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*92*		*63 - 129*
4-Bromofluorobenzene (Surr)	*93*		*66 - 117*
Toluene-d8 (Surr)	*89*		*74 - 115*
Dibromofluoromethane (Surr)	*105*		*75 - 121*

Lab Sample ID: 240-13766-1 MSD
Matrix: Water
Analysis Batch: 54194

Client Sample ID: GW-7097-080112-CB-023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1.0	U	10.0	10.4		ug/L		104	72 - 121	6	30
Ethylbenzene	1.0	U	10.0	10.4		ug/L		104	75 - 116	9	30
Toluene	1.0	U	10.0	9.91		ug/L		99	78 - 114	8	30
Xylenes, Total	2.0	U	30.0	31.3		ug/L					
Methyl tert-butyl ether	5.0	U	10.0	9.74		ug/L		97	46 - 144	6	30
m-Xylene & p-Xylene	2.0		20.0	20.9		ug/L		105	75 - 117	9	30
o-Xylene	1.0		10.0	10.4		ug/L		104	76 - 116	9	30
1,2,4-Trimethylbenzene	1.0	U	10.0	10.0		ug/L		100	67 - 124	7	30
1,3,5-Trimethylbenzene	1.0	U	10.0	9.99		ug/L		100	63 - 121	7	30
Naphthalene	5.0	U	10.0	10.9		ug/L		109	15 - 158	8	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*
Toluene-d8 (Surr)	*97*		*74 - 115*
Dibromofluoromethane (Surr)	*108*		*75 - 121*

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(39-128)	(26-141)	(33-134)	(30-122)
240-13660-1	SO-7097-073012-CB-007	106	98	96	93
240-13660-2	SO-7097-073012-CB-008	104	98	96	92
240-13660-3	SO-7097-073012-CB-009	103	96	92	93
240-13660-4	SO-7097-073012-CB-010	116	107	104	103
240-13660-5	TB -7097-073012-CB-011	113	104	101	100
240-13729-1	SO-7097-073112-CB-012	105	94	94	91
240-13729-2	SO-7097-073112-CB-013	101	94	90	87
LCS 240-53354/2-A	Lab Control Sample	98	93	87	90
LCS 240-53395/2-A	Lab Control Sample	95	92	85	88
MB 240-53354/1-A	Method Blank	101	90	88	88
MB 240-53395/1-A	Method Blank	97	94	90	88

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(63-129)	(66-117)	(74-115)	(75-121)
240-13766-1	GW-7097-080112-CB-023	97	92	91	104
240-13766-1 MS	GW-7097-080112-CB-023	92	93	89	105
240-13766-1 MSD	GW-7097-080112-CB-023	97	101	97	108
240-13766-2	GW-7097-080112-CB-024	97	96	95	105
240-13766-3	TB-7097-080112-CB-025	98	92	92	103
LCS 240-54194/4	Lab Control Sample	92	97	93	103
MB 240-54194/5	Method Blank	91	91	89	95

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Client Sample ID: SO-7097-073012-CB-007 — Lab Sample ID: 240-13660-1

Date Collected: 07/30/12 14:30 — **Matrix: Solid**
Date Received: 07/31/12 09:30 — **Percent Solids: 97.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53395	08/06/12 14:40	LM	TAL NC
Total/NA	Analysis	8260B		1	53623	08/07/12 22:57	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: SO-7097-073012-CB-008 — Lab Sample ID: 240-13660-2

Date Collected: 07/30/12 14:50 — **Matrix: Solid**
Date Received: 07/31/12 09:30 — **Percent Solids: 95.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53395	08/06/12 14:40	LM	TAL NC
Total/NA	Analysis	8260B		1	53623	08/07/12 23:22	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: SO-7097-073012-CB-009 — Lab Sample ID: 240-13660-3

Date Collected: 07/30/12 13:10 — **Matrix: Solid**
Date Received: 07/31/12 09:30 — **Percent Solids: 94.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53395	08/06/12 14:40	LM	TAL NC
Total/NA	Analysis	8260B		1	53623	08/07/12 23:47	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: SO-7097-073012-CB-010 — Lab Sample ID: 240-13660-4

Date Collected: 07/30/12 13:20 — **Matrix: Solid**
Date Received: 07/31/12 09:30 — **Percent Solids: 94.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53395	08/06/12 14:40	LM	TAL NC
Total/NA	Analysis	8260B		1	53623	08/08/12 00:12	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: TB -7097-073012-CB-011 — Lab Sample ID: 240-13660-5

Date Collected: 07/30/12 00:00 — **Matrix: Solid**
Date Received: 07/31/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53395	08/06/12 14:40	LM	TAL NC
Total/NA	Analysis	8260B		1	53623	08/08/12 00:37	TL	TAL NC

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Client Sample ID: SO-7097-073112-CB-012

Lab Sample ID: 240-13729-1

Date Collected: 07/31/12 09:25
Matrix: Solid
Date Received: 08/01/12 09:30
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53354	08/06/12 11:06	LM	TAL NC
Total/NA	Analysis	8260B		1	53777	08/09/12 04:10	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: SO-7097-073112-CB-013

Lab Sample ID: 240-13729-2

Date Collected: 07/31/12 10:00
Matrix: Solid
Date Received: 08/01/12 09:30
Percent Solids: 94.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53354	08/06/12 11:06	LM	TAL NC
Total/NA	Analysis	8260B		1	53777	08/09/12 04:35	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: GW-7097-080112-CB-023

Lab Sample ID: 240-13766-1

Date Collected: 08/01/12 10:45
Matrix: Water
Date Received: 08/02/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	54194	08/13/12 20:16	LW	TAL NC

Client Sample ID: GW-7097-080112-CB-024

Lab Sample ID: 240-13766-2

Date Collected: 08/01/12 10:55
Matrix: Water
Date Received: 08/02/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	54194	08/13/12 18:24	LW	TAL NC

Client Sample ID: TB-7097-080112-CB-025

Lab Sample ID: 240-13766-3

Date Collected: 08/01/12 00:00
Matrix: Water
Date Received: 08/02/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	54194	08/13/12 18:46	LW	TAL NC

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13660-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-12
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-12
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-12
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-12

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO.: PL- 08995
PAGE 2 OF 2
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 007097-T05412
Project Name: Racer - PCC West
Project Location: Pontiac, MI
Chemistry Contact: Paul Wiseman
Sampler(s): C. Bondy

Laboratory Name: Test America
Lab Contact: Denise Heckler

Lab Location: North Canton, OH
Lab Quote No:

SSOW ID: 13080T05-002
Cooler No: 260-167
Carrier: FedEx
Airbill No: 8709 8505 0393
Date Shipped: 7/30/12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	TCL VOCs	MS/MSD Request	Comments/ Special Instructions:
1	SO-7097-073012-CB-007	7/30/12	1430	SO	G	1					1			2	X		
2	-008		1450			1					1			2	X		
3	-009		1310			1					1			2	X		
4	-010		1320			1					1			2	X		
5	TB -011		—	SOQ	—						1			1	X		
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Analysis Requested (See Back of COC for Definitions)

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☑ 2 Week ☐ Other:

Total Number of Containers: 29
All Samples in Cooler must be on COC

Notes/Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1. C. Bondy	CRA	7/30/12	1630	1. [signature]	TA	7/31/12	938
				2.			
				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica North Canton Sample Receipt Form/Narrative Login # : 136660

Client CRA Site Name Racer By: Mike [illegible]

Cooler Received on 7/31/12 Opened on 7/31/12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # 260-167 Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp.____°C	Corrected Sample Temp.____°C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp.____°C	Corrected Sample Temp.____°C	☐ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp.____°C	Corrected Sample Temp.____°C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp. 1.8 °C	Corrected Sample Temp. 1.8 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity____ Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s)____ were received after the recommended holding time had expired.

Sample(s)____ were received in a broken container.

Sample(s)____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO. PL- 09810
PAGE 1 OF 3
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 007097-T05412
Project Name: Racer - PCC West
Project Location: Pontiac, MI
Chemistry Contact: Paul Wiseman
Sampler(s): C. Bondy

Laboratory Name: Test America
Lab Contact: Denise Heckler

Lab Location: North Canton, OH
Lab Quote No:

SSOW ID: 13080T05-002
Cooler No: 241325
Carrier: FedEx
Airbill No: 8709 8505 0408
Date Shipped: 7/31/12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Unleaded gasoline VOC (12)	MS/MSD Request	Comments/ Special Instructions:
1	SO-7097-073112-CB-012	7/31/12	925	SO	G	1					1			2	X		
2	↓ ↓ ↓ ↓-013	↓	1000	↓	↓	1					1			2	X		
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☑ 2 Week ☐ Other:

Total Number of Containers: 4
All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
C. Bondy	CRA	7/31/12	1600	1. [signature]	TAL	8-1-12	930
				2.			
				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT — ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE — Fully Executed Copy (CRA) YELLOW — Receiving Laboratory Copy PINK — Shipper GOLDENROD — Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica North Canton Sample Receipt Form/Narrative Login # : 13729

Client CRA Site Name _____ By: CL

Cooler Received on 8-1-12 Opened on 8-1-12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	☐ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp. 2.6 °C	Corrected Sample Temp. 2.6 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity_____ Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s)_____ were received after the recommended holding time had expired.

Sample(s)_____ were received in a broken container.

Sample(s)_____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO. PL-09109
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 007097-TOS412
Project Name: Racer - PCC West
Project Location: Pontiac, MI
Chemistry Contact: Paul Wiseman
Sampler(s): C. Bondy

Laboratory Name: Test America
Lab Contact: Denise Heckler
Lab Location: North Canton, OH
Lab Quote No:
SSOW ID: 13080TOS-002
Cooler No:
Carrier: FedEx
Airbill No: ~~8709 8505 0382~~
Date Shipped: 8/1/12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Unleaded gasoline VOC(2)	MS/MSD Request	Comments/ Special Instructions:
1	GW-7097-080112-CB-023	8/1/12	1045	WC	G		9							9	X		
2	↓ ↓ ↓ -024	↓	1055	↓	↓		3							3	X		
3	TB ↓ ↓ ↓ -025	↓	—	WGQ	—		1							1	X		
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☑ 2 Week ☐ Other:

Total Number of Containers: 13
All Samples in Cooler must be on COC

Notes/ Special Requirements: BATCH COMPLETE

	Relinquished By	Company	Date	Time		Received By	Company	Date	Time
1.	C. Bondy	CRA	8/1/12	1345	1.	Matthew [illegible]	Montrew	2/1/12	0900
2.					2.				
3.					3.				

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica North Canton Sample Receipt Form/Narrative Login # : 13766

Client CRA Site Name Racer By: Matt Lomp (Signature)

Cooler Received on 2 AUG 2012 Opened on 2 AUG 2012

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. 4.2 °C	Corrected Sample Temp. 3.2 °C	☐ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-13660-1

Login Number: 13660

List Source: TestAmerica Canton

List Number: 1

Creator: Maddux, Ann

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-13660-1

Login Number: 13729

List Source: TestAmerica Canton

List Number: 1

Creator: Livengood, Chris

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-13660-1

Login Number: 13766

List Source: TestAmerica Canton

List Number: 1

Creator: Livengood, Chris

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-13731-1
Client Project/Site: 7097-T05, RACER PCC

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Authorized for release by:
8/10/2012 10:19:54 AM
Nathan Pietras
Project Manager II
nathan.pietras@testamericainc.com

Designee for

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Definitions/Glossary 5
Sample Summary 6
Detection Summary 7
Method Summary 8
Client Sample Results 9
QC Association Summary 17
QC Sample Results 18
Surrogate Summary 21
Lab Chronicle 22
Certification Summary 23
Chain of Custody 24
Receipt Checklists 27

Job ID: 240-13731-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 7097-T05, RACER PCC

Report Number: 240-13731-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 08/01/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.6 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SO-7097-073112-CB-018 (240-13731-1), SO-7097-073112-CB-019 (240-13731-2), SO-7097-073112-CB-021 (240-13731-3) and TB-7097-073112-CB-022 (240-13731-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 08/06/2012 and analyzed on 08/08/2012 and 08/09/2012.

Methylene Chloride was detected in method blank MB 240-53354/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

1,2-Dichloroethane-d4 (Surr), 4-Bromofluorobenzene (Surr), Dibromofluoromethane (Surr) and Toluene-d8 (Surr) failed the surrogate recovery criteria low for SO-7097-073112-CB-019 (240-13731-2).

Bromomethane and Chloroethane failed the recovery criteria high for LCS 240-53354/2-A.

Methyl acetate failed the recovery criteria high for the MSD of sample 240-13658-1 in batch 240-53777. 1,2-Dibromo-3-Chloropropane,

Job ID: 240-13731-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Chloroethane and Cyclohexane exceeded the rpd limit.

Refer to the QC report for details.

Sample SO-7097-073112-CB-019 (240-13731-2)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B: The laboratory control sample (LCS) for batch 53354 exceeded control limits for the following analyte(s): chloroethane, and bromomethane. These analytes have been identified as poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The results have been reported and qualified.

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples SO-7097-073112-CB-018 (240-13731-1), SO-7097-073112-CB-019 (240-13731-2) and SO-7097-073112-CB-021 (240-13731-3) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/02/2012.

Percent Moisture exceeded the rpd limit for the duplicate of sample 240-13660-1. Percent Moisture exceeded the rpd limit for the duplicate of sample 240-13729-1. Refer to the QC report for details.

No other difficulties were encountered during the % solids analyses.

All other quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-13731-1	SO-7097-073112-CB-018	Solid	07/31/12 12:15	08/01/12 09:30
240-13731-2	SO-7097-073112-CB-019	Solid	07/31/12 13:00	08/01/12 09:30
240-13731-3	SO-7097-073112-CB-021	Solid	07/31/12 14:25	08/01/12 09:30
240-13731-4	TB-7097-073112-CB-022	Solid	07/31/12 00:00	08/01/12 09:30

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Client Sample ID: SO-7097-073112-CB-018 — Lab Sample ID: 240-13731-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1100		43	13	ug/Kg	1	☼	8260B	Total/NA
Trichloroethene	2700		43	11	ug/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	1800		43	23	ug/Kg	1	☼	8260B	Total/NA
cis-1,2-Dichloroethene	23	J	43	7.5	ug/Kg	1	☼	8260B	Total/NA

Client Sample ID: SO-7097-073112-CB-019 — Lab Sample ID: 240-13731-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	11000		440	190	ug/Kg	10	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	180	J	870	55	ug/Kg	10	☼	8260B	Total/NA
Trichloroethene	4600		440	110	ug/Kg	10	☼	8260B	Total/NA
Xylenes, Total	130	J	1300	89	ug/Kg	10	☼	8260B	Total/NA
1,1,1-Trichloroethane	25000		440	230	ug/Kg	10	☼	8260B	Total/NA
Methylcyclohexane	350	J	10000	130	ug/Kg	10	☼	8260B	Total/NA

Client Sample ID: SO-7097-073112-CB-021 — Lab Sample ID: 240-13731-3

No Detections

Client Sample ID: TB-7097-073112-CB-022 — Lab Sample ID: 240-13731-4

No Detections

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
Moisture	Percent Moisture	EPA	TAL NC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073112-CB-018
Date Collected: 07/31/12 12:15
Date Received: 08/01/12 09:30

Lab Sample ID: 240-13731-1
Matrix: Solid
Percent Solids: 85.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	650	U	650	180	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Benzene	43	U	43	13	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Bromodichloromethane	87	U	87	11	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Bromoform	87	U	87	21	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Bromomethane	220	U *	220	32	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
2-Butanone (MEK)	650	U	650	47	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Carbon tetrachloride	43	U	43	7.0	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Chlorobenzene	43	U	43	7.0	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Chloroethane	220	U *	220	66	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Chloroform	43	U	43	9.6	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Chloromethane	220	U	220	15	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,1-Dichloroethane	43	U	43	18	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2-Dichloroethane	43	U	43	11	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,1-Dichloroethene	43	U	43	20	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2-Dichloropropane	43	U	43	8.9	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2,4-Trimethylbenzene	87	U	87	5.4	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
cis-1,3-Dichloropropene	43	U	43	8.6	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
trans-1,3-Dichloropropene	43	U	43	22	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Ethylbenzene	43	U	43	5.9	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Methylene Chloride	220	U	220	84	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	52	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Styrene	43	U	43	6.1	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,1,2,2-Tetrachloroethane	43	U	43	9.7	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Tetrachloroethene	**1100**		43	13	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Toluene	87	U	87	18	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Trichloroethene	**2700**		43	11	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,3,5-Trimethylbenzene	87	U	87	6.3	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Vinyl chloride	35	U	35	20	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Xylenes, Total	130	U	130	8.8	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,1,1-Trichloroethane	**1800**		43	23	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,1,2-Trichloroethane	43	U	43	13	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Cyclohexane	1000	U	1000	43	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2-Dibromo-3-Chloropropane	220	U	220	54	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Dichlorodifluoromethane	87	U	87	17	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
cis-1,2-Dichloroethene	**23**	**J**	43	7.5	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
trans-1,2-Dichloroethene	43	U	43	10	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Isopropylbenzene	220	U	220	7.1	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Methyl acetate	1000	U	1000	27	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Methyl tert-butyl ether	220	U	220	7.7	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	42	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2,4-Trichlorobenzene	220	U	220	7.9	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,2-Dichlorobenzene	87	U	87	9.3	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,3-Dichlorobenzene	87	U	87	5.2	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
1,4-Dichlorobenzene	87	U	87	8.7	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Trichlorofluoromethane	87	U	87	17	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Dibromochloromethane	43	U	43	13	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1
Methylcyclohexane	1000	U	1000	13	ug/Kg	☼	08/06/12 11:06	08/08/12 19:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		39 - 128	08/06/12 11:06	08/08/12 19:46	1
4-Bromofluorobenzene (Surr)	91		26 - 141	08/06/12 11:06	08/08/12 19:46	1
Toluene-d8 (Surr)	88		33 - 134	08/06/12 11:06	08/08/12 19:46	1
Dibromofluoromethane (Surr)	88		30 - 122	08/06/12 11:06	08/08/12 19:46	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073112-CB-019
Date Collected: 07/31/12 13:00
Date Received: 08/01/12 09:30

Lab Sample ID: 240-13731-2
Matrix: Solid
Percent Solids: 91.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	6600	U	6600	1900	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Benzene	440	U	440	130	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Bromodichloromethane	870	U	870	110	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Bromoform	870	U	870	210	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Bromomethane	2200	U *	2200	320	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
2-Butanone (MEK)	6600	U	6600	470	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Carbon disulfide	2200	U	2200	130	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Carbon tetrachloride	440	U	440	70	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Chlorobenzene	440	U	440	70	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Chloroethane	2200	U *	2200	670	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Chloroform	440	U	440	96	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Chloromethane	2200	U	2200	150	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,1-Dichloroethane	**11000**		440	190	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2-Dichloroethane	440	U	440	110	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,1-Dichloroethene	440	U	440	200	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2-Dichloropropane	440	U	440	90	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2,4-Trimethylbenzene	**180**	**J**	870	55	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
cis-1,3-Dichloropropene	440	U	440	86	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
trans-1,3-Dichloropropene	440	U	440	220	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Ethylbenzene	440	U	440	59	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
2-Hexanone	22000	U	22000	220	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Methylene Chloride	2200	U	2200	840	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
4-Methyl-2-pentanone (MIBK)	22000	U	22000	520	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Styrene	440	U	440	61	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,1,2,2-Tetrachloroethane	440	U	440	97	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Tetrachloroethene	440	U	440	130	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Toluene	870	U	870	190	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Trichloroethene	**4600**		440	110	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,3,5-Trimethylbenzene	870	U	870	63	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Vinyl chloride	350	U	350	200	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Xylenes, Total	**130**	**J**	1300	89	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,1,1-Trichloroethane	**25000**		440	230	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,1,2-Trichloroethane	440	U	440	130	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Cyclohexane	10000	U	10000	440	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2-Dibromo-3-Chloropropane	2200	U	2200	550	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2-Dibromoethane	2200	U	2200	110	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Dichlorodifluoromethane	870	U	870	170	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
cis-1,2-Dichloroethene	440	U	440	75	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
trans-1,2-Dichloroethene	440	U	440	100	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Isopropylbenzene	2200	U	2200	71	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Methyl acetate	10000	U	10000	270	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Methyl tert-butyl ether	2200	U	2200	78	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,1,2-Trichloro-1,2,2-trifluoroethane	2200	U	2200	430	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2,4-Trichlorobenzene	2200	U	2200	80	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,2-Dichlorobenzene	870	U	870	94	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,3-Dichlorobenzene	870	U	870	52	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
1,4-Dichlorobenzene	870	U	870	87	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Trichlorofluoromethane	870	U	870	170	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Dibromochloromethane	440	U	440	130	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10
Methylcyclohexane	**350**	**J**	10000	130	ug/Kg	☼	08/06/12 11:06	08/09/12 05:25	10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	2	X	39 - 128	08/06/12 11:06	08/09/12 05:25	10
4-Bromofluorobenzene (Surr)	1	X	26 - 141	08/06/12 11:06	08/09/12 05:25	10
Toluene-d8 (Surr)	2	X	33 - 134	08/06/12 11:06	08/09/12 05:25	10
Dibromofluoromethane (Surr)	2	X	30 - 122	08/06/12 11:06	08/09/12 05:25	10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SO-7097-073112-CB-021
Date Collected: 07/31/12 14:25
Date Received: 08/01/12 09:30

Lab Sample ID: 240-13731-3
Matrix: Solid
Percent Solids: 90.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	670	U	670	190	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Benzene	44	U	44	13	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Bromodichloromethane	89	U	89	11	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Bromoform	89	U	89	21	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Bromomethane	220	U *	220	32	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
2-Butanone (MEK)	670	U	670	48	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Carbon disulfide	220	U	220	13	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Carbon tetrachloride	44	U	44	7.1	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Chlorobenzene	44	U	44	7.1	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Chloroethane	220	U *	220	68	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Chloroform	44	U	44	9.8	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Chloromethane	220	U	220	16	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,1-Dichloroethane	44	U	44	19	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2-Dichloroethane	44	U	44	11	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,1-Dichloroethene	44	U	44	20	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2-Dichloropropane	44	U	44	9.1	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2,4-Trimethylbenzene	89	U	89	5.6	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
cis-1,3-Dichloropropene	44	U	44	8.8	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
trans-1,3-Dichloropropene	44	U	44	22	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Ethylbenzene	44	U	44	6.0	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
2-Hexanone	2200	U	2200	22	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Methylene Chloride	220	U	220	86	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
4-Methyl-2-pentanone (MIBK)	2200	U	2200	53	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Styrene	44	U	44	6.2	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,1,2,2-Tetrachloroethane	44	U	44	9.9	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Tetrachloroethene	44	U	44	13	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Toluene	89	U	89	19	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Trichloroethene	44	U	44	11	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,3,5-Trimethylbenzene	89	U	89	6.4	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Vinyl chloride	36	U	36	20	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Xylenes, Total	130	U	130	9.0	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,1,1-Trichloroethane	44	U	44	23	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,1,2-Trichloroethane	44	U	44	13	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Cyclohexane	1100	U	1100	44	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2-Dibromo-3-Chloropropane	220	U	220	56	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2-Dibromoethane	220	U	220	11	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Dichlorodifluoromethane	89	U	89	18	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
cis-1,2-Dichloroethene	44	U	44	7.7	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
trans-1,2-Dichloroethene	44	U	44	10	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Isopropylbenzene	220	U	220	7.2	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Methyl acetate	1100	U	1100	28	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Methyl tert-butyl ether	220	U	220	7.9	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	220	U	220	43	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2,4-Trichlorobenzene	220	U	220	8.1	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,2-Dichlorobenzene	89	U	89	9.6	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,3-Dichlorobenzene	89	U	89	5.3	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
1,4-Dichlorobenzene	89	U	89	8.9	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Trichlorofluoromethane	89	U	89	18	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Dibromochloromethane	44	U	44	13	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1
Methylcyclohexane	1100	U	1100	13	ug/Kg	☼	08/06/12 11:06	08/08/12 20:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		39 - 128	08/06/12 11:06	08/08/12 20:37	1
4-Bromofluorobenzene (Surr)	87		26 - 141	08/06/12 11:06	08/08/12 20:37	1
Toluene-d8 (Surr)	85		33 - 134	08/06/12 11:06	08/08/12 20:37	1
Dibromofluoromethane (Surr)	83		30 - 122	08/06/12 11:06	08/08/12 20:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-7097-073112-CB-022
Date Collected: 07/31/12 00:00
Date Received: 08/01/12 09:30

Lab Sample ID: 240-13731-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Benzene	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Bromoform	80	U	80	19	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Bromomethane	200	U *	200	29	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Carbon disulfide	200	U	200	12	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Chlorobenzene	40	U	40	6.4	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Chloroethane	200	U *	200	61	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Chloroform	40	U	40	8.8	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Chloromethane	200	U	200	14	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Ethylbenzene	40	U	40	5.4	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
2-Hexanone	2000	U	2000	20	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Methylene Chloride	200	U	200	77	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Styrene	40	U	40	5.6	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Tetrachloroethene	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Toluene	80	U	80	17	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Trichloroethene	40	U	40	9.7	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Vinyl chloride	32	U	32	18	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Xylenes, Total	120	U	120	8.1	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Cyclohexane	960	U	960	40	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Methyl acetate	960	U	960	25	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Dibromochloromethane	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 21:02	1
Methylcyclohexane	960	U	960	12	ug/Kg		08/06/12 11:06	08/08/12 21:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		39 - 128	08/06/12 11:06	08/08/12 21:02	1
4-Bromofluorobenzene (Surr)	103		26 - 141	08/06/12 11:06	08/08/12 21:02	1
Toluene-d8 (Surr)	102		33 - 134	08/06/12 11:06	08/08/12 21:02	1
Dibromofluoromethane (Surr)	95		30 - 122	08/06/12 11:06	08/08/12 21:02	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

GC/MS VOA

Prep Batch: 53354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13731-1	SO-7097-073112-CB-018	Total/NA	Solid	5035	
240-13731-2	SO-7097-073112-CB-019	Total/NA	Solid	5035	
240-13731-3	SO-7097-073112-CB-021	Total/NA	Solid	5035	
240-13731-4	TB-7097-073112-CB-022	Total/NA	Solid	5035	
LCS 240-53354/2-A	Lab Control Sample	Total/NA	Solid	5035	
MB 240-53354/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 53777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13731-1	SO-7097-073112-CB-018	Total/NA	Solid	8260B	53354
240-13731-2	SO-7097-073112-CB-019	Total/NA	Solid	8260B	53354
240-13731-3	SO-7097-073112-CB-021	Total/NA	Solid	8260B	53354
240-13731-4	TB-7097-073112-CB-022	Total/NA	Solid	8260B	53354
LCS 240-53354/2-A	Lab Control Sample	Total/NA	Solid	8260B	53354
MB 240-53354/1-A	Method Blank	Total/NA	Solid	8260B	53354

General Chemistry

Analysis Batch: 52965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-13731-1	SO-7097-073112-CB-018	Total/NA	Solid	Moisture	
240-13731-2	SO-7097-073112-CB-019	Total/NA	Solid	Moisture	
240-13731-3	SO-7097-073112-CB-021	Total/NA	Solid	Moisture	

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-53354/1-A
Matrix: Solid
Analysis Batch: 53777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	170	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Benzene	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Bromodichloromethane	80	U	80	9.9	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Bromoform	80	U	80	19	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Bromomethane	200	U	200	29	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
2-Butanone (MEK)	600	U	600	43	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Carbon disulfide	200	U	200	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Carbon tetrachloride	40	U	40	6.4	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Chlorobenzene	40	U	40	6.4	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Chloroethane	200	U	200	61	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Chloroform	40	U	40	8.8	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Chloromethane	200	U	200	14	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,1-Dichloroethane	40	U	40	17	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2-Dichloroethane	40	U	40	10	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,1-Dichloroethene	40	U	40	18	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2-Dichloropropane	40	U	40	8.2	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2,4-Trimethylbenzene	80	U	80	5.0	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
cis-1,3-Dichloropropene	40	U	40	7.9	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
trans-1,3-Dichloropropene	40	U	40	20	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Ethylbenzene	40	U	40	5.4	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
2-Hexanone	2000	U	2000	20	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Methylene Chloride	120	J	200	77	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	48	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Styrene	40	U	40	5.6	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,1,2,2-Tetrachloroethane	40	U	40	8.9	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Tetrachloroethene	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Toluene	80	U	80	17	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Trichloroethene	40	U	40	9.7	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,3,5-Trimethylbenzene	80	U	80	5.8	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Vinyl chloride	32	U	32	18	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Xylenes, Total	120	U	120	8.1	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,1,1-Trichloroethane	40	U	40	21	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,1,2-Trichloroethane	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Cyclohexane	960	U	960	40	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2-Dibromo-3-Chloropropane	200	U	200	50	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2-Dibromoethane	200	U	200	10	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Dichlorodifluoromethane	80	U	80	16	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
cis-1,2-Dichloroethene	40	U	40	6.9	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
trans-1,2-Dichloroethene	40	U	40	9.2	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Isopropylbenzene	200	U	200	6.5	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Methyl acetate	960	U	960	25	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Methyl tert-butyl ether	200	U	200	7.1	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	39	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2,4-Trichlorobenzene	200	U	200	7.3	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,2-Dichlorobenzene	80	U	80	8.6	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,3-Dichlorobenzene	80	U	80	4.8	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
1,4-Dichlorobenzene	80	U	80	8.0	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Trichlorofluoromethane	80	U	80	16	ug/Kg		08/06/12 11:06	08/08/12 19:21	1
Dibromochloromethane	40	U	40	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-53354/1-A
Matrix: Solid
Analysis Batch: 53777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	960	U	960	12	ug/Kg		08/06/12 11:06	08/08/12 19:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*39 - 128*	*08/06/12 11:06*	*08/08/12 19:21*	*1*
4-Bromofluorobenzene (Surr)	*90*		*26 - 141*	*08/06/12 11:06*	*08/08/12 19:21*	*1*
Toluene-d8 (Surr)	*88*		*33 - 134*	*08/06/12 11:06*	*08/08/12 19:21*	*1*
Dibromofluoromethane (Surr)	*88*		*30 - 122*	*08/06/12 11:06*	*08/08/12 19:21*	*1*

Lab Sample ID: LCS 240-53354/2-A
Matrix: Solid
Analysis Batch: 53777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1000	1450		ug/Kg		145	16 - 156
Benzene	500	519		ug/Kg		104	70 - 117
Bromodichloromethane	500	432		ug/Kg		86	28 - 123
Bromoform	500	342		ug/Kg		68	10 - 117
Bromomethane	500	1030	*	ug/Kg		205	10 - 114
2-Butanone (MEK)	1000	1100		ug/Kg		110	10 - 199
Carbon disulfide	500	525		ug/Kg		105	10 - 132
Carbon tetrachloride	500	490		ug/Kg		98	29 - 118
Chlorobenzene	500	509		ug/Kg		102	71 - 116
Chloroethane	500	767	*	ug/Kg		153	10 - 120
Chloroform	500	477		ug/Kg		95	63 - 116
Chloromethane	500	401		ug/Kg		80	25 - 110
1,1-Dichloroethane	500	534		ug/Kg		107	63 - 117
1,2-Dichloroethane	500	517		ug/Kg		103	68 - 119
1,1-Dichloroethene	500	656		ug/Kg		131	44 - 143
1,2-Dichloropropane	500	498		ug/Kg		100	73 - 113
1,2,4-Trimethylbenzene	500	482		ug/Kg		96	62 - 133
cis-1,3-Dichloropropene	500	432		ug/Kg		86	25 - 120
trans-1,3-Dichloropropene	500	417		ug/Kg		83	22 - 122
Ethylbenzene	500	515		ug/Kg		103	66 - 119
2-Hexanone	1000	1030	J	ug/Kg		103	43 - 130
Methylene Chloride	500	710		ug/Kg		142	27 - 172
4-Methyl-2-pentanone (MIBK)	1000	1040	J	ug/Kg		104	49 - 121
Styrene	500	472		ug/Kg		94	60 - 120
1,1,2,2-Tetrachloroethane	500	503		ug/Kg		101	54 - 121
Tetrachloroethene	500	541		ug/Kg		108	58 - 131
Toluene	500	516		ug/Kg		103	66 - 123
Trichloroethene	500	508		ug/Kg		102	59 - 124
1,3,5-Trimethylbenzene	500	472		ug/Kg		94	60 - 130
Vinyl chloride	500	430		ug/Kg		86	33 - 110
Xylenes, Total	1500	1500		ug/Kg		100	68 - 119
1,1,1-Trichloroethane	500	479		ug/Kg		96	38 - 122
1,1,2-Trichloroethane	500	514		ug/Kg		103	74 - 114
Cyclohexane	500	365	J	ug/Kg		73	40 - 120
1,2-Dibromo-3-Chloropropane	500	433		ug/Kg		87	10 - 129
1,2-Dibromoethane	500	501		ug/Kg		100	47 - 123

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-53354/2-A
Matrix: Solid
Analysis Batch: 53777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	500	376		ug/Kg		75	10 - 110
cis-1,2-Dichloroethene	500	490		ug/Kg		98	60 - 125
trans-1,2-Dichloroethene	500	553		ug/Kg		111	58 - 121
Isopropylbenzene	500	517		ug/Kg		103	61 - 123
Methyl acetate	500	824	J	ug/Kg		165	44 - 173
Methyl tert-butyl ether	500	601		ug/Kg		120	34 - 157
1,1,2-Trichloro-1,2,2-trifluoroethane	500	738		ug/Kg		148	48 - 151
1,2,4-Trichlorobenzene	500	518		ug/Kg		104	41 - 135
1,2-Dichlorobenzene	500	500		ug/Kg		100	68 - 118
1,3-Dichlorobenzene	500	481		ug/Kg		96	66 - 121
1,4-Dichlorobenzene	500	473		ug/Kg		95	65 - 119
Trichlorofluoromethane	500	622		ug/Kg		124	17 - 145
Dibromochloromethane	500	374		ug/Kg		75	22 - 113
Methylcyclohexane	500	445	J	ug/Kg		89	41 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*39 - 128*
4-Bromofluorobenzene (Surr)	*93*		*26 - 141*
Toluene-d8 (Surr)	*87*		*33 - 134*
Dibromofluoromethane (Surr)	*90*		*30 - 122*

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(39-128)	(26-141)	(33-134)	(30-122)
240-13731-1	SO-7097-073112-CB-018	99	91	88	88
240-13731-2	SO-7097-073112-CB-019	2 X	1 X	2 X	2 X
240-13731-3	SO-7097-073112-CB-021	95	87	85	83
240-13731-4	TB-7097-073112-CB-022	108	103	102	95
LCS 240-53354/2-A	Lab Control Sample	98	93	87	90
MB 240-53354/1-A	Method Blank	101	90	88	88

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Client Sample ID: SO-7097-073112-CB-018

Lab Sample ID: 240-13731-1
Date Collected: 07/31/12 12:15
Matrix: Solid
Date Received: 08/01/12 09:30
Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53354	08/06/12 11:06	LM	TAL NC
Total/NA	Analysis	8260B		1	53777	08/08/12 19:46	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: SO-7097-073112-CB-019

Lab Sample ID: 240-13731-2
Date Collected: 07/31/12 13:00
Matrix: Solid
Date Received: 08/01/12 09:30
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53354	08/06/12 11:06	LM	TAL NC
Total/NA	Analysis	8260B		10	53777	08/09/12 05:25	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: SO-7097-073112-CB-021

Lab Sample ID: 240-13731-3
Date Collected: 07/31/12 14:25
Matrix: Solid
Date Received: 08/01/12 09:30
Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53354	08/06/12 11:06	LM	TAL NC
Total/NA	Analysis	8260B		1	53777	08/08/12 20:37	TL	TAL NC
Total/NA	Analysis	Moisture		1	52965	08/02/12 11:13	TH	TAL NC

Client Sample ID: TB-7097-073112-CB-022

Lab Sample ID: 240-13731-4
Date Collected: 07/31/12 00:00
Matrix: Solid
Date Received: 08/01/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			53354	08/06/12 11:06	LM	TAL NC
Total/NA	Analysis	8260B		1	53777	08/08/12 21:02	TL	TAL NC

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05, RACER PCC

TestAmerica Job ID: 240-13731-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-12
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-12
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-12
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-12

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO. PL-09811

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 007097-T05412
Project Name: Racer-PCC West
Project Location: Pontiac, MI
Chemistry Contact: Paul Wiseman
Sampler(s): C. Bondy

Laboratory Name: Test America
Lab Contact: Denise Heckler
Lab Location: North Canton, OH
Lab Quote No:
SSOW ID: 13080T05-002
Cooler No: 241325
Carrier: FedEx
Airbill No: 8709 8505 0408
Date Shipped: 7/31/12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	TCL VOC	MS/MSD Request	Comments/ Special Instructions:
1	SO-7097-073112-CB-018	7/31/12	1215	SO	G	1					1			2	X		
2	-019		1300			1					1			2	X		
3	-021		1425			1					1			2	X		
	TB -022		—	SOQ	—						1			1	X		
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☑ 1 Week ☐ 2 Week ☐ Other:

Total Number of Containers: 7
All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
C. Bondy	CRA	7/31/12	1600	1. [signature]	TAL	8-1-12	930
				2.			
				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT — ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE — Fully Executed Copy (CRA) YELLOW — Receiving Laboratory Copy PINK — Shipper GOLDENROD — Sampling Crew

CRA Form: COC-10A (20110804)

8/10/2012

TestAmerica North Canton Sample Receipt Form/Narrative Login # : 13731

Client CRA Site Name _____ By: CL

Cooler Received on 8-1-12 Opened on 8-1-12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	☐ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp. 2.6 °C	Corrected Sample Temp. 2.6 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-13731-1

Login Number: 13731

List Source: TestAmerica Canton

List Number: 1

Creator: Livengood, Chris

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Appendix E

September 24, 2013 Groundwater Sampling Event Results and Request to Amend the Corrective Action Complete with Controls Report

CONESTOGA-ROVERS
& ASSOCIATES

14496 Sheldon Road, Suite 200, Plymouth, MI 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

September 24, 2013

Reference No. 007097

Mr. Peter Ramanauskas
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd., LU-9J
Chicago, Illinois 60604-3590

Dear Mr. Ramanauskas:

Re: 2013 Groundwater Sampling Event Results and
Request to Amend the Corrective Action Complete with Controls Report
Pontiac Centerpoint Campus; Pontiac, Oakland County, Michigan
U.S. EPA No. MID 005 356 902

In July 2013, Conestoga-Rovers & Associates, Inc. (CRA) conducted an additional groundwater monitoring event near AOI 50 (DUCO Stores) at the request of the U.S. Environmental Protection Agency (EPA). The groundwater sampling was completed to confirm historic data from underground storage tank (UST) confirmed releases (C-0235-90, C-0776-90, and C-1831-91) associated with DUCO Stores. In March 2013, the EPA & Michigan Department of Environmental Quality (MDEQ) officially agreed that the EPA would take the lead on the DUCO Stores confirmed releases C-0235-90, C-0776-90, C-1831-91.

The goal of this letter is to present the 2013 groundwater sampling results and obtain approval from the EPA to complete an amendment to the current Corrective Action Complete with Controls (CACC) report. The amendment will include the 2012 and 2013 field investigations and data associated with DUCO Stores. See Figure 1 for a Site location map of the Pontiac Centerpoint Campus. See Figure 2 for a Site Plan with the location of the DUCO Stores.

1.0 BACKGROUND

In 1998, GM began RCRA Corrective Action activities at the Pontiac Centerpoint Campus (PCC) U.S. EPA No. MID 005 356 902 under an EPA Consent Order. RACER's Pontiac West property is a portion of PCC. The EPA issued a Final Decision in 2006 for the facility under the RCRA Corrective Action program identifying the release at DUCO Stores would be addressed under the closure requirements of Michigan Act 451, Part 213. General Motors (GM) undertook various actions to investigate and remediate the releases at DUCO Stores under Michigan Act 451, Part 213 requirements. In October 2010, A Leaking Underground Storage Tank Closure Report (Closure Report) for DUCO Stores (confirmed releases C-0235-90, C-0776-90, C-1831-91) was submitted to the Michigan Department of Environmental Quality (MDEQ). In letters dated

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REGISTERED COMPANY FO
ISO 900
ENGINEERING DESIG

Worldwide Engineering, Environmental, Construction, and IT Services

April 20, 2011 and June 20, 2011, the MDEQ completed an audit of corrective actions to the Closure Report.

In an email dated March 14, 2012, RACER confirmed that the EPA and MDEQ agreed to address the confirmed releases associated with DUCO Stores through the RCRA Corrective Action process. On February 10, 2012, CRA submitted a letter to the EPA addressing the comments from the MDEQ audit of corrective actions. In response to the February 10, 2012 letter, the EPA requested an investigation of chlorinated volatile organic compound (VOCs) impacts located west of the former UST excavation area in the former Hazardous Material Handling Storage Pad (hazardous pad) and VOC impacts located east of the former UST footprint directly across from SB-6-08 and SB-1-08.

On July 30, 31 and August 1, 2012, a field investigation was completed to address chlorinated VOC impacts located west of the former UST basin in the former hazardous waste storage pad location and VOC impacts located east of the former UST footprint directly across from SB-6-08 and SB-1-08. Based on current/future Site restrictions, chlorinated VOC impacts were delineated to the north (SB-18-12), south (SB-21-12), east (up to the former UST excavation basin) and west (SB-16-12 and SB-6-12). Vinyl chloride was encountered at SB-10-12; however, based on current/future Site restrictions, vinyl chloride impacts are not above applicable criteria.

As part of the RCRA Corrective Action, institutional controls to restrict land use to industrial/commercial uses and to restrict resource use to prevent shallow groundwater from being used for drinking water have been implemented throughout the majority of the former Pontiac Centerpoint Campus, including DUCO Stores. The implementation of these resource use restrictions was approved by the EPA on April 21, 2006 as part of the Corrective Measures Proposal and the restriction was filed with the Oakland County Recorder's office on April 12, 2007

An additional RC was completed specific to DUCO Stores Confirmed Releases C-0235-90, C-0776-90 and C-1831-91 in compliance with Michigan Act 451, Part 213 and is recorded with Oakland County as Liber 42390, Pages 712-731 on September 22, 2010. In general, the RC prohibits construction of wells.

2.0 2013 GROUNDWATER MONITORING EVENT

A groundwater monitoring event was conducted on July 18, 2013 to collect groundwater samples from monitoring wells near DUCO Stores to confirm historic data. See Figure 3 for a Site map with monitoring well locations sampled during the 2013 groundwater monitoring event.

Investigation:

Seven monitoring wells (MW34-01 through MW34-07) were sampled on July 18, 2013 for analysis of TCL VOCs. Groundwater sampling and analysis followed methods and procedures (including sample handling, field documentation requirements, field and laboratory analytical methods and QA/QC procedures) outlined in the EPA approved Sampling and Analysis Plan and Fundamental Quality Assurance Project Plan dated (revised) June 20, 2012 (SAP/QAPP).

During the investigation, MW34-08 went dry prior to stabilization required for low flow sampling; therefore, no sample was collected from MW34-08. The groundwater at MW34-08 was last sampled in August and December 2009 and analytical results indicated VOCs, SVOCs and lead were non-detect from both rounds of sampling.

Results:

No VOCs were detected above laboratory reporting limits except for cis-1,2-dichloroethene (cis-1,2 DCE) at 1.3 ug/L; however, this concentration does not exceed MDEQ Part 201 Drinking Water Criteria of 70 ug/L. See Table 1 for a summary of groundwater analytical results. See Attachment A for the laboratory analytical report. See Attachment B for the laboratory validation report.

3.0 RECOMMENDATIONS

Based on data collected from the 2009 – 2013 investigations, soil and groundwater data confirms delineation of historic impacts associated with former DUCO Stores USTs and no further investigations are necessary. Therefore, CRA, on behalf of RACER, recommends a restrictive covenant requiring soil vapor management near the former hazardous waste pad as proposed in the November 28, 2012 letter titled "*RCRA Corrective Action - Releases associated with AOI 50 and an UST near AOI 53*". Upon completion and filing of the restrictive covenant, CRA, on behalf of RACER, recommends approval from the EPA to complete an amendment to the current CACC Report documenting the 2012 - 2013 field activities associated with DUCO Stores.

Following EPA approval of the amended CACC, the RCRA Corrective Action process will be complete and the EPA can terminate the existing consent order.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Thomas Kinney

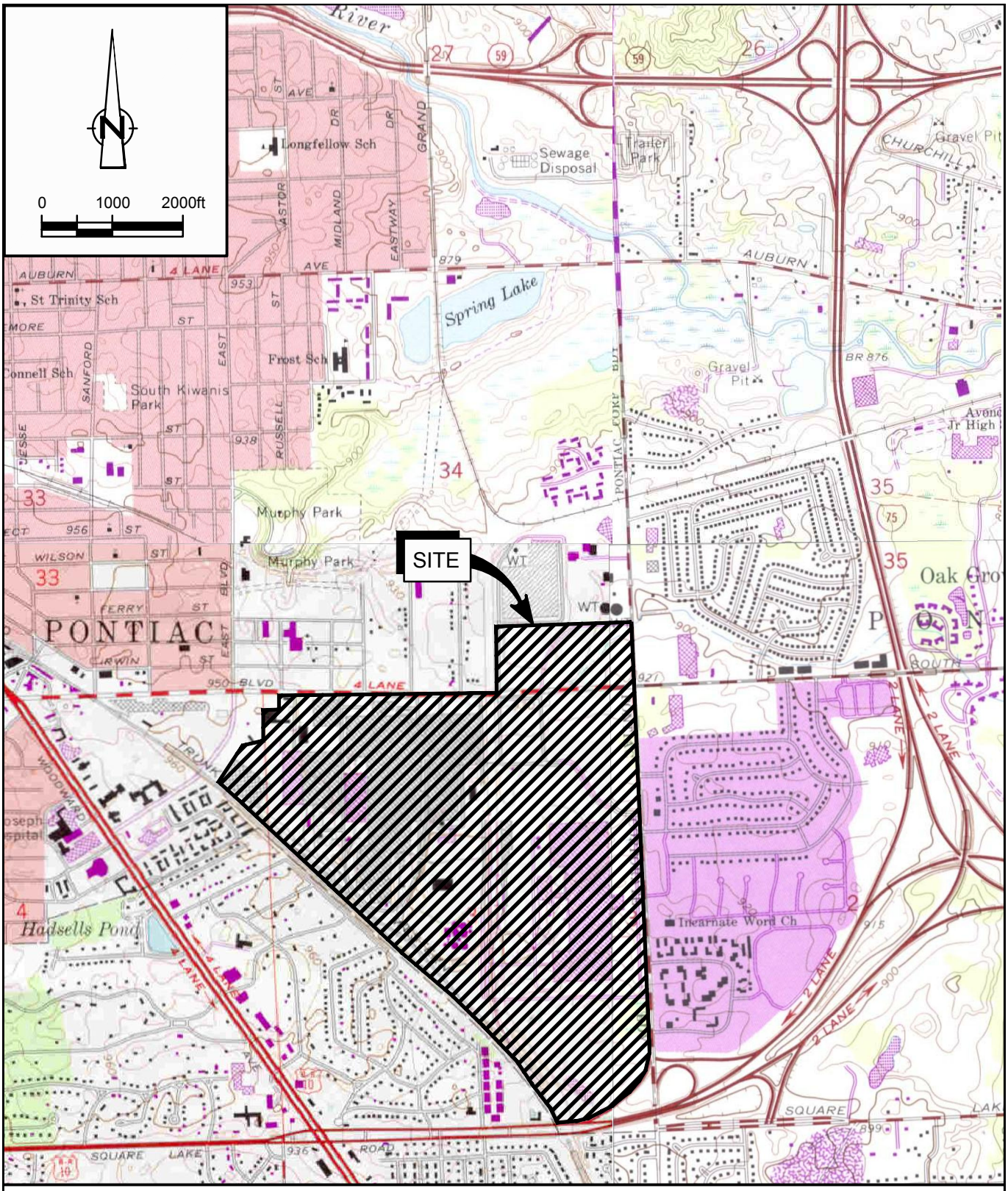
Thomas M. Kinney, CPG

TMK/MJC/ds/3/Det.

Encl: Figure 1– Site Location Map
Figure 2– Site Plan
Figure 3– 2013 Groundwater Monitoring Locations
Table 1 – 2013 Groundwater Analytical Results
Attachment A – Laboratory Analytical Report
Attachment B – Laboratory Validation Report

cc: Grant Trigger, RACER
Dave Favero, RACER

FIGURES

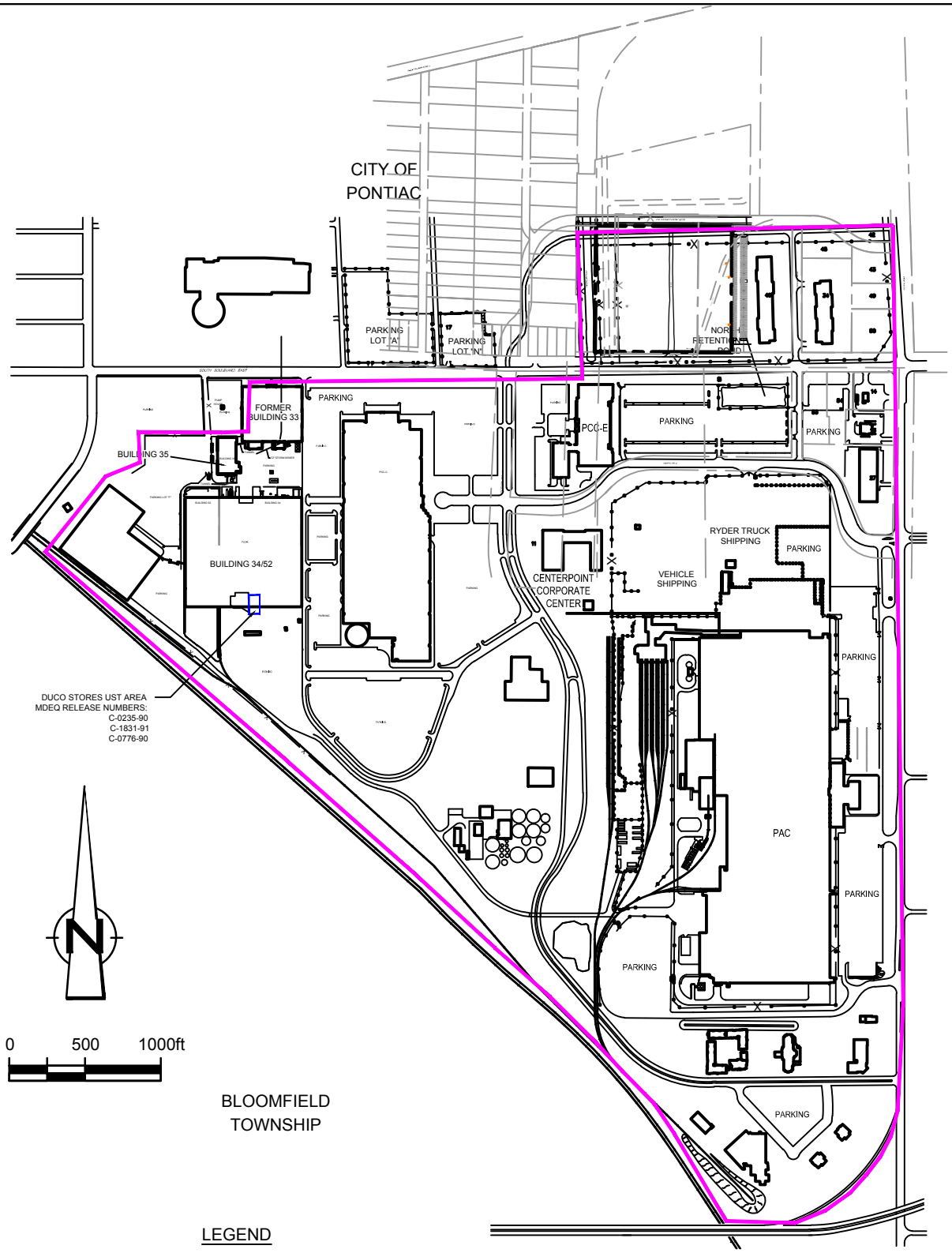


SOURCE: USGS QUADRANGLE MAPS;
BIRMINGHAM, ROCHESTER, PONTIAC NORTH,
AND PONTIAC SOUTH, MICHIGAN

figure 1

SITE LOCATION
PONTIAC CENTERPOINT CAMPUS
Pontiac, Michigan

07097-T05(RAMI003)GN-DE001 AUG 29/2013



LEGEND

- BUILDING OUTLINE
- FORMER BUILDING LOCATION
- FENCE
- RAIL SPUR
- PCC-WEST PROPERTY BOUNDARY

figure 2

SITE PLAN
AOI-50 - DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T05(RAMI003)GN-DE002 SEP 10/2013

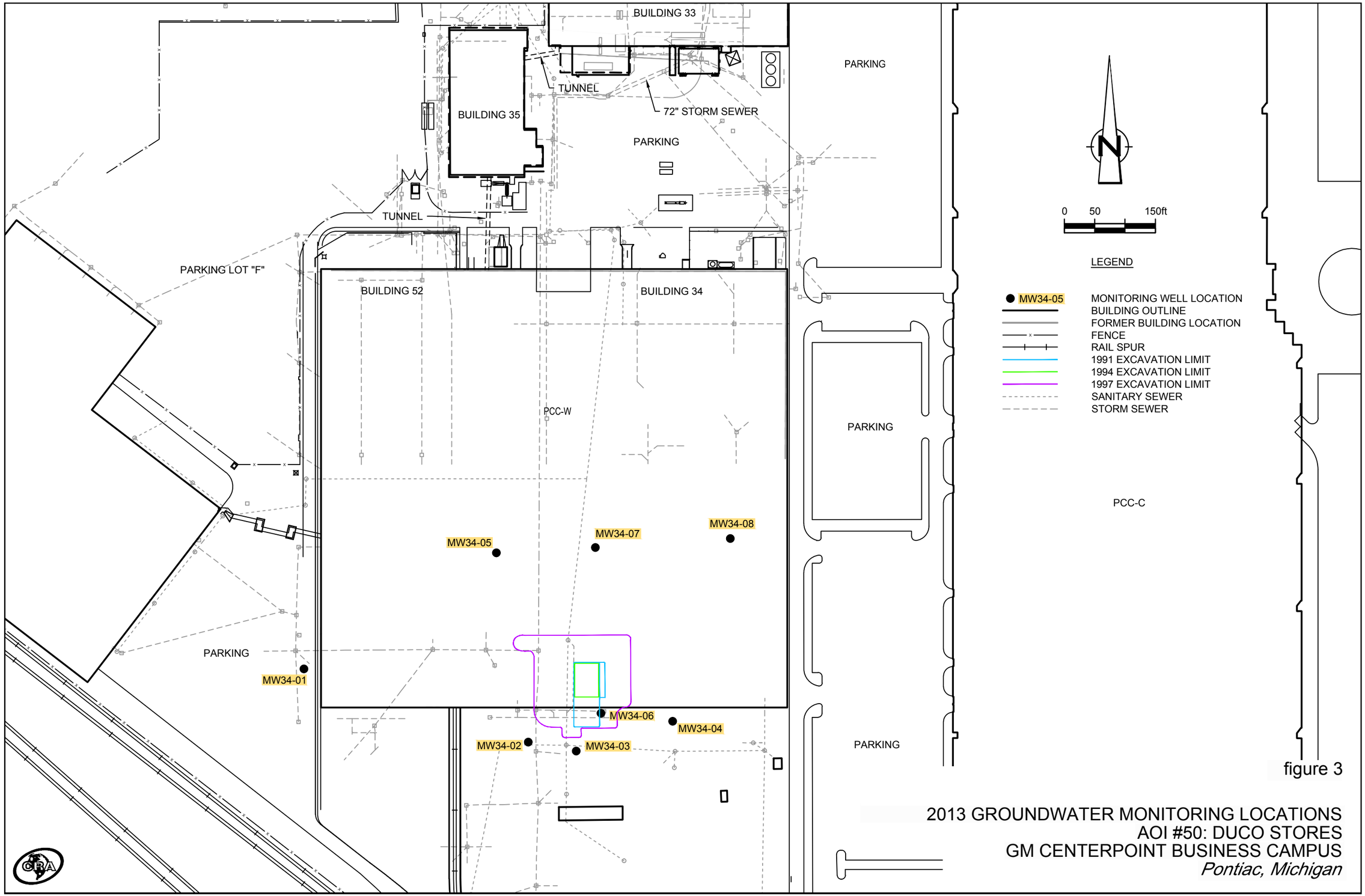


figure 3

2013 GROUNDWATER MONITORING LOCATIONS
AOI #50: DUCO STORES
GM CENTERPOINT BUSINESS CAMPUS
Pontiac, Michigan

07097-T05(RAMI003)GN-DE003 AUG 29/2013

TABLE

TABLE 1

2013 GROUNDWATER ANALYTICAL RESULTS
TCL-VOCS
PCC - VALIDATION
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)										
Sample Location:				***MW34-01***	***MW34-01***	***MW34-02***	***MW34-03***	***MW34-04***	***MW34-05***	***MW34-06***	***MW34-07***	***Trip Blank***
Sample ID:		***Residential Drinking Water***	***Non-Residential Drinking Water***	***GW-7097-071813-SK-001***	***GW-7097-071813-SK-002***	***GW-7097-071813-SK-003***	***GW-7097-071813-SK-006***	***GW-7097-071813-SK-005***	***GW-7097-071813-SK-007***	***GW-7097-071813-SK-004***	***GW-7097-071813-SK-008***	***TB-7097-071813-SK***
Sample Date:				***07/18/2013***	***07/18/2013***	***07/18/2013***	***07/18/2013***	***07/18/2013***	***07/18/2013***	***07/18/2013***	***07/18/2013***	***07/18/2013***
Sample Type:					***Duplicate***							
Parameters	***Units***	***a***	***b***									
VOCs												
1,1,1-Trichloroethane	ug/L	200 A	200 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	8.5	35	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	880	2500	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	7 A	7 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	70 A	70 A	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2 A	0.2 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05 A	0.05 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600 A	600 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	6.6	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75 A	75 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	13000	38000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	1000	2900	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	1800	5200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	730	2100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.1 J
Benzene	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	0.13 J	0.13 J	0.21 J	1.0 U	1.0 U
Bromodichloromethane	ug/L	80 A,W	80 A,W	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	80 A,W	80 A,W	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	29	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Carbon disulfide	ug/L	800	2300	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	100 A	100 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	430	1700	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Chloroform (Trichloromethane)	ug/L	80 A,W	80 A,W	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	260	1100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70 A	70 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	0.66 J	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	80 A,W	80 A,W	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1700	4800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	74 E	74 E	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	800	2300	1.0 U	1.0 U	1.0 U	1.0 U	0.50 J	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	40 E	40 E	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5 A	5 A	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	100 A	100 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	790 E	790 E	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100 A	100 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	5 A	5 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	2600	7300	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	170000 S	170000 S	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	2 A	2 A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	280 E	280 E	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Notes:
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
NA - Criteria not available or not applicable

ATTACHMENT A

LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Job Number: 240-27035-1

Job Description: 7097-T05-003, RACER PCC

For:
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170

Attention: Mr. Paul Wiseman

Approved for release.
Denise D Heckler
Project Manager II
7/31/2013 10:13 AM

Denise D Heckler, Project Manager II
4101 Shuffel Street NW, North Canton, OH, 44720
(330)966-9477
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07/31/2013

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Table of Contents

Cover Title Page 1

Data Summaries 4

Report Narrative 4

Sample Summary 5

Executive Summary 6

Method Summary 7

Method / Analyst Summary 8

Sample Datasheets 9

Surrogate Summary 27

QC Data Summary 28

Data Qualifiers 40

QC Association Summary 41

Lab Chronicle 42

Reagent Traceability 45

COAs 59

Certification Summary 82

Organic Sample Data 83

GC/MS VOA 83

Method 8260B 83

Method 8260B QC Summary 84

Method 8260B Sample Data 101

Standards Data 155

Method 8260B ICAL Data 155

Method 8260B CCAL Data 189

Raw QC Data 215

Method 8260B Tune Data 215

Table of Contents

Method 8260B Blank Data 224

Method 8260B LCS/LCSD Data 239

Method 8260B MS/MSD Data 251

Method 8260B Run Logs 261

Shipping and Receiving Documents 264

Client Chain of Custody 265

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 7097-T05-003, RACER PCC

Report Number: 240-27035-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/19/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.3 C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples GW-7097-071813-SK-001 (240-27035-1), GW-7097-071813-SK-002 (240-27035-2), GW-7097-071813-SK-003 (240-27035-3), GW-7097-071813-SK-004 (240-27035-4), GW-7097-071813-SK-005 (240-27035-5), GW-7097-071813-SK-006 (240-27035-6), GW-7097-071813-SK-007 (240-27035-7), GW-7097-071813-SK-008 (240-27035-8) and TB-7097-071813-SK (240-27035-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/27/2013, 07/29/2013 and 07/30/2013.

Acetone was detected in method blank MB 240-95368/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the VOCs analysis.

All other quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-27035-1	GW-7097-071813-SK-001	Water	07/18/2013 1100	07/19/2013 0925
240-27035-2	GW-7097-071813-SK-002	Water	07/18/2013 1120	07/19/2013 0925
240-27035-3	GW-7097-071813-SK-003	Water	07/18/2013 1155	07/19/2013 0925
240-27035-4	GW-7097-071813-SK-004	Water	07/18/2013 1240	07/19/2013 0925
240-27035-5	GW-7097-071813-SK-005	Water	07/18/2013 1330	07/19/2013 0925
240-27035-6	GW-7097-071813-SK-006	Water	07/18/2013 1425	07/19/2013 0925
240-27035-7	GW-7097-071813-SK-007	Water	07/18/2013 1515	07/19/2013 0925
240-27035-7MS	GW-7097-071813-SK-007	Water	07/18/2013 1515	07/19/2013 0925
240-27035-7MSD	GW-7097-071813-SK-007	Water	07/18/2013 1515	07/19/2013 0925
240-27035-8	GW-7097-071813-SK-008	Water	07/18/2013 1650	07/19/2013 0925
240-27035-9	TB-7097-071813-SK	Water	07/18/2013 0000	07/19/2013 0925

EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-27035-1	**GW-7097-071813-SK-001**					
Acetone		1.1	J	10	ug/L	8260B
240-27035-4	**GW-7097-071813-SK-004**					
Benzene		0.21	J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		1.3		1.0	ug/L	8260B
240-27035-5	**GW-7097-071813-SK-005**					
Acetone		2.0	J	10	ug/L	8260B
Benzene		0.13	J	1.0	ug/L	8260B
Cyclohexane		0.66	J	1.0	ug/L	8260B
Isopropylbenzene		0.50	J	1.0	ug/L	8260B
240-27035-7	**GW-7097-071813-SK-007**					
Benzene		0.13	J	1.0	ug/L	8260B
240-27035-9	**TB-7097-071813-SK**					
Acetone		1.1	J	10	ug/L	8260B

METHOD SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CAN	SW846 8260B	
Purge and Trap	TAL CAN		SW846 5030B

Lab References:

TAL CAN = TestAmerica Canton

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Method	Analyst	Analyst ID
SW846 8260B	Williams, Larry	LRW

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-001**

Lab Sample ID: 240-27035-1 Date Sampled: 07/18/2013 1100
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6672.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1926			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1926				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.1	J	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-001**

Lab Sample ID: 240-27035-1 Date Sampled: 07/18/2013 1100
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6672.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1926			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1926				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		63 - 129
4-Bromofluorobenzene (Surr)	78		66 - 117
Toluene-d8 (Surr)	80		74 - 115
Dibromofluoromethane (Surr)	101		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-002**

Lab Sample ID: 240-27035-2 Date Sampled: 07/18/2013 1120
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6673.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1948			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1948				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-002**

Lab Sample ID: 240-27035-2 Date Sampled: 07/18/2013 1120
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6673.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1948			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1948				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		63 - 129
4-Bromofluorobenzene (Surr)	74		66 - 117
Toluene-d8 (Surr)	77		74 - 115
Dibromofluoromethane (Surr)	99		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-003**

Lab Sample ID: 240-27035-3 Date Sampled: 07/18/2013 1155
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6674.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2010			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2010				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-003**

Lab Sample ID: 240-27035-3 Date Sampled: 07/18/2013 1155
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6674.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2010			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2010				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		63 - 129
4-Bromofluorobenzene (Surr)	78		66 - 117
Toluene-d8 (Surr)	78		74 - 115
Dibromofluoromethane (Surr)	102		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-004**

Lab Sample ID: 240-27035-4 Date Sampled: 07/18/2013 1240
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6675.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2032			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2032				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.1	10
Benzene	0.21	J	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.3		0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-004**

Lab Sample ID: 240-27035-4 Date Sampled: 07/18/2013 1240
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6675.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2032			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2032				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		63 - 129
4-Bromofluorobenzene (Surr)	73		66 - 117
Toluene-d8 (Surr)	76		74 - 115
Dibromofluoromethane (Surr)	101		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-005**

Lab Sample ID: 240-27035-5 Date Sampled: 07/18/2013 1330
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6676.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2054			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2054				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.0	J	1.1	10
Benzene	0.13	J	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	0.66	J	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	0.50	J	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-005**

Lab Sample ID: 240-27035-5 Date Sampled: 07/18/2013 1330
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6676.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2054			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2054				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		63 - 129
4-Bromofluorobenzene (Surr)	81		66 - 117
Toluene-d8 (Surr)	77		74 - 115
Dibromofluoromethane (Surr)	98		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-006**

Lab Sample ID: 240-27035-6 Date Sampled: 07/18/2013 1425
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6689.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/29/2013 1727			Final Weight/Volume:	5 mL
Prep Date:	07/29/2013 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-006**

Lab Sample ID: 240-27035-6 Date Sampled: 07/18/2013 1425
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6689.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/29/2013 1727			Final Weight/Volume:	5 mL
Prep Date:	07/29/2013 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		63 - 129
4-Bromofluorobenzene (Surr)	70		66 - 117
Toluene-d8 (Surr)	80		74 - 115
Dibromofluoromethane (Surr)	97		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-007**

Lab Sample ID: 240-27035-7 Date Sampled: 07/18/2013 1515
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6707.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/30/2013 0001			Final Weight/Volume:	5 mL
Prep Date:	07/30/2013 0001				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.1	10
Benzene	0.13	J	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-007**

Lab Sample ID: 240-27035-7 Date Sampled: 07/18/2013 1515
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6707.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/30/2013 0001			Final Weight/Volume:	5 mL
Prep Date:	07/30/2013 0001				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		63 - 129
4-Bromofluorobenzene (Surr)	70		66 - 117
Toluene-d8 (Surr)	75		74 - 115
Dibromofluoromethane (Surr)	103		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-008**

Lab Sample ID: 240-27035-8 Date Sampled: 07/18/2013 1650
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6678.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2138			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2138				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	10	U	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **GW-7097-071813-SK-008**

Lab Sample ID: 240-27035-8 Date Sampled: 07/18/2013 1650
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6678.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2138			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2138				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		63 - 129
4-Bromofluorobenzene (Surr)	74		66 - 117
Toluene-d8 (Surr)	79		74 - 115
Dibromofluoromethane (Surr)	103		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **TB-7097-071813-SK**

Lab Sample ID: 240-27035-9 Date Sampled: 07/18/2013 0000
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6679.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2200			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2200				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.1	J	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Client Sample ID: **TB-7097-071813-SK**

Lab Sample ID: 240-27035-9 Date Sampled: 07/18/2013 0000
Client Matrix: Water Date Received: 07/19/2013 0925

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXR6679.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 2200			Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 2200				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 129
4-Bromofluorobenzene (Surr)	72		66 - 117
Toluene-d8 (Surr)	77		74 - 115
Dibromofluoromethane (Surr)	104		75 - 121

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-27035-1	GW-7097-071813-SK -001	101	93	80	78
240-27035-2	GW-7097-071813-SK -002	99	93	77	74
240-27035-3	GW-7097-071813-SK -003	102	98	78	78
240-27035-4	GW-7097-071813-SK -004	101	95	76	73
240-27035-5	GW-7097-071813-SK -005	98	93	77	81
240-27035-6	GW-7097-071813-SK -006	97	91	80	70
240-27035-7	GW-7097-071813-SK -007	103	98	75	70
240-27035-8	GW-7097-071813-SK -008	103	97	79	74
240-27035-9	TB-7097-071813-SK	104	99	77	72
MB 240-95231/6		95	92	75	75
MB 240-95368/6		100	93	79	74
LCS 240-95231/4		92	86	85	98
LCS 240-95368/4		93	88	86	94
240-27035-7 MS	GW-7097-071813-SK -007 MS	93	90	82	101
240-27035-7 MSD	GW-7097-071813-SK -007 MSD	95	90	82	95

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Method Blank - Batch: 240-95231 **Method: 8260B**
Preparation: 5030B

Lab Sample ID:	MB 240-95231/6	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6660.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1439	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1439				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	10	U	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Method Blank - Batch: 240-95231

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-95231/6	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6660.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1439	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1439				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	63 - 129
4-Bromofluorobenzene (Surr)	75	66 - 117
Toluene-d8 (Surr)	75	74 - 115
Dibromofluoromethane (Surr)	95	75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Lab Control Sample - Batch: 240-95231

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-95231/4	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6658.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1354	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1354				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	22.3	111	43 - 136	
Benzene	10.0	10.7	107	83 - 112	
Bromodichloromethane	10.0	10.7	107	72 - 121	
Bromoform	10.0	9.66	97	40 - 131	
Bromomethane	10.0	11.0	110	11 - 185	
2-Butanone (MEK)	20.0	20.2	101	60 - 126	
Carbon disulfide	10.0	11.1	111	62 - 142	
Carbon tetrachloride	10.0	10.6	106	66 - 128	
Chlorobenzene	10.0	9.53	95	85 - 110	
Chloroethane	10.0	12.4	124	25 - 153	
Chloroform	10.0	10.4	104	79 - 117	
Chloromethane	10.0	9.35	93	44 - 126	
1,1-Dichloroethane	10.0	10.5	105	82 - 115	
1,2-Dichloroethane	10.0	9.93	99	71 - 127	
1,1-Dichloroethene	10.0	10.2	102	78 - 131	
1,2-Dichloropropane	10.0	10.4	104	81 - 115	
1,2,4-Trimethylbenzene	10.0	9.64	96	76 - 120	
cis-1,3-Dichloropropene	10.0	9.69	97	61 - 115	
trans-1,3-Dichloropropene	10.0	7.90	79	58 - 117	
Ethylbenzene	10.0	9.82	98	83 - 112	
2-Hexanone	20.0	17.4	87	55 - 133	
Methylene Chloride	10.0	10.6	106	66 - 131	
4-Methyl-2-pentanone (MIBK)	20.0	18.8	94	63 - 128	
Styrene	10.0	10.3	103	79 - 114	
1,1,2,2-Tetrachloroethane	10.0	8.64	86	68 - 118	
Tetrachloroethene	10.0	9.40	94	79 - 114	
Toluene	10.0	9.56	96	84 - 111	
Trichloroethene	10.0	10.8	108	76 - 117	
1,3,5-Trimethylbenzene	10.0	9.63	96	72 - 118	
Vinyl chloride	10.0	9.61	96	53 - 127	
Xylenes, Total	30.0	29.9	100	83 - 112	
1,1,1-Trichloroethane	10.0	10.3	103	74 - 118	
1,1,2-Trichloroethane	10.0	9.41	94	80 - 112	
Cyclohexane	10.0	10.2	102	54 - 121	
1,2-Dibromo-3-Chloropropane	10.0	7.26	73	42 - 136	
1,2-Dibromoethane	10.0	9.40	94	79 - 113	
Dichlorodifluoromethane	10.0	8.93	89	19 - 129	
cis-1,2-Dichloroethene	10.0	10.7	107	80 - 113	
trans-1,2-Dichloroethene	10.0	10.4	104	83 - 117	
Isopropylbenzene	10.0	9.98	100	75 - 114	
Methyl acetate	10.0	10.1	101	58 - 131	
Methyl tert-butyl ether	10.0	9.76	98	52 - 144	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.5	115	74 - 151	
1,2,4-Trichlorobenzene	10.0	6.07	61	48 - 135	
1,2-Dichlorobenzene	10.0	8.85	89	81 - 110	
1,3-Dichlorobenzene	10.0	9.03	90	80 - 110	

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Lab Control Sample - Batch: 240-95231

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-95231/4	Analysis Batch:	240-95231	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6658.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/27/2013 1354	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/27/2013 1354				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dichlorobenzene	10.0	8.83	88	82 - 110	
Trichlorofluoromethane	10.0	10.4	104	49 - 157	
Dibromochloromethane	10.0	9.33	93	64 - 119	
Methylcyclohexane	10.0	10.3	103	56 - 127	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	63 - 129
4-Bromofluorobenzene (Surr)	98	66 - 117
Toluene-d8 (Surr)	85	74 - 115
Dibromofluoromethane (Surr)	92	75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Method Blank - Batch: 240-95368 **Method: 8260B**
Preparation: 5030B

Lab Sample ID:	MB 240-95368/6	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6687.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/29/2013 1643	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/29/2013 1643				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	5.30	J	1.1	10
Benzene	1.0	U	0.13	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
2-Butanone (MEK)	10	U	0.57	10
Carbon disulfide	5.0	U	0.13	5.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Ethylbenzene	1.0	U	0.17	1.0
2-Hexanone	10	U	0.41	10
Methylene Chloride	5.0	U	0.33	5.0
4-Methyl-2-pentanone (MIBK)	10	U	0.32	10
Styrene	1.0	U	0.11	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
Trichloroethene	1.0	U	0.17	1.0
1,3,5-Trimethylbenzene	1.0	U	0.096	1.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2-Trichloroethane	1.0	U	0.27	1.0
Cyclohexane	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.67	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl acetate	10	U	0.38	10
Methyl tert-butyl ether	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Method Blank - Batch: 240-95368

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-95368/6	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6687.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/29/2013 1643	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/29/2013 1643				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.13	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	63 - 129
4-Bromofluorobenzene (Surr)	74	66 - 117
Toluene-d8 (Surr)	79	74 - 115
Dibromofluoromethane (Surr)	100	75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Lab Control Sample - Batch: 240-95368 **Method: 8260B**
Preparation: 5030B

Lab Sample ID:	LCS 240-95368/4	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6685.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/29/2013 1559	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/29/2013 1559				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	20.0	24.3	121	43 - 136	
Benzene	10.0	10.3	103	83 - 112	
Bromodichloromethane	10.0	10.5	105	72 - 121	
Bromoform	10.0	9.09	91	40 - 131	
Bromomethane	10.0	12.0	120	11 - 185	
2-Butanone (MEK)	20.0	18.8	94	60 - 126	
Carbon disulfide	10.0	10.7	107	62 - 142	
Carbon tetrachloride	10.0	10.5	105	66 - 128	
Chlorobenzene	10.0	9.39	94	85 - 110	
Chloroethane	10.0	14.0	140	25 - 153	
Chloroform	10.0	10.3	103	79 - 117	
Chloromethane	10.0	9.83	98	44 - 126	
1,1-Dichloroethane	10.0	10.4	104	82 - 115	
1,2-Dichloroethane	10.0	10.1	101	71 - 127	
1,1-Dichloroethene	10.0	10.0	100	78 - 131	
1,2-Dichloropropane	10.0	10.4	104	81 - 115	
1,2,4-Trimethylbenzene	10.0	9.35	94	76 - 120	
cis-1,3-Dichloropropene	10.0	9.71	97	61 - 115	
trans-1,3-Dichloropropene	10.0	7.90	79	58 - 117	
Ethylbenzene	10.0	9.65	97	83 - 112	
2-Hexanone	20.0	17.5	87	55 - 133	
Methylene Chloride	10.0	9.20	92	66 - 131	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	63 - 128	
Styrene	10.0	10.1	101	79 - 114	
1,1,2,2-Tetrachloroethane	10.0	8.45	85	68 - 118	
Tetrachloroethene	10.0	9.69	97	79 - 114	
Toluene	10.0	9.59	96	84 - 111	
Trichloroethene	10.0	10.5	105	76 - 117	
1,3,5-Trimethylbenzene	10.0	9.30	93	72 - 118	
Vinyl chloride	10.0	9.86	99	53 - 127	
Xylenes, Total	30.0	29.4	98	83 - 112	
1,1,1-Trichloroethane	10.0	10.2	102	74 - 118	
1,1,2-Trichloroethane	10.0	9.84	98	80 - 112	
Cyclohexane	10.0	9.91	99	54 - 121	
1,2-Dibromo-3-Chloropropane	10.0	7.26	73	42 - 136	
1,2-Dibromoethane	10.0	9.80	98	79 - 113	
Dichlorodifluoromethane	10.0	9.11	91	19 - 129	
cis-1,2-Dichloroethene	10.0	10.2	102	80 - 113	
trans-1,2-Dichloroethene	10.0	9.80	98	83 - 117	
Isopropylbenzene	10.0	9.68	97	75 - 114	
Methyl acetate	10.0	10.8	108	58 - 131	
Methyl tert-butyl ether	10.0	9.42	94	52 - 144	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.3	113	74 - 151	
1,2,4-Trichlorobenzene	10.0	6.00	60	48 - 135	
1,2-Dichlorobenzene	10.0	8.63	86	81 - 110	
1,3-Dichlorobenzene	10.0	8.94	89	80 - 110	

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Lab Control Sample - Batch: 240-95368

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-95368/4	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6685.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/29/2013 1559	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/29/2013 1559				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dichlorobenzene	10.0	8.62	86	82 - 110	
Trichlorofluoromethane	10.0	10.6	106	49 - 157	
Dibromochloromethane	10.0	9.48	95	64 - 119	
Methylcyclohexane	10.0	9.83	98	56 - 127	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88	63 - 129
4-Bromofluorobenzene (Surr)	94	66 - 117
Toluene-d8 (Surr)	86	74 - 115
Dibromofluoromethane (Surr)	93	75 - 121

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-95368

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-27035-7	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6708.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/30/2013 0024			Final Weight/Volume:	5 mL
Prep Date:	07/30/2013 0024				
Leach Date:	N/A				

MSD Lab Sample ID:	240-27035-7	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6709.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/30/2013 0045			Final Weight/Volume:	5 mL
Prep Date:	07/30/2013 0045				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	87	79	33 - 145	10	30		
Benzene	99	99	72 - 121	0	30		
Bromodichloromethane	106	103	67 - 120	3	30		
Bromoform	92	90	32 - 128	3	30		
Bromomethane	107	110	10 - 186	3	30		
2-Butanone (MEK)	89	87	54 - 129	3	30		
Carbon disulfide	102	104	57 - 147	1	30		
Carbon tetrachloride	100	100	59 - 129	0	30		
Chlorobenzene	89	91	80 - 110	2	30		
Chloroethane	132	128	21 - 165	3	30		
Chloroform	101	101	76 - 118	0	30		
Chloromethane	90	83	33 - 132	8	30		
1,1-Dichloroethane	100	101	79 - 116	2	30		
1,2-Dichloroethane	100	101	68 - 129	1	30		
1,1-Dichloroethene	92	96	74 - 135	4	30		
1,2-Dichloropropane	99	98	78 - 115	1	30		
1,2,4-Trimethylbenzene	83	88	67 - 124	6	30		
cis-1,3-Dichloropropene	87	86	51 - 110	1	30		
trans-1,3-Dichloropropene	73	73	46 - 116	0	30		
Ethylbenzene	88	91	75 - 116	4	30		
2-Hexanone	87	82	47 - 139	6	30		
Methylene Chloride	85	85	63 - 128	1	30		
4-Methyl-2-pentanone (MIBK)	96	94	56 - 131	2	30		
Styrene	96	98	71 - 117	2	30		
1,1,2,2-Tetrachloroethane	77	75	63 - 122	2	30		
Tetrachloroethene	89	90	70 - 117	2	30		
Toluene	89	90	78 - 114	2	30		
Trichloroethene	100	103	66 - 120	3	30		
1,3,5-Trimethylbenzene	81	88	63 - 121	8	30		
Vinyl chloride	97	96	49 - 130	2	30		
Xylenes, Total	94	95	76 - 116	1	30		
1,1,1-Trichloroethane	102	100	68 - 121	1	30		
1,1,2-Trichloroethane	94	89	75 - 115	6	30		

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-95368

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-27035-7	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6708.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/30/2013 0024			Final Weight/Volume:	5 mL
Prep Date:	07/30/2013 0024				
Leach Date:	N/A				

MSD Lab Sample ID:	240-27035-7	Analysis Batch:	240-95368	Instrument ID:	A3UX17
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXR6709.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/30/2013 0045			Final Weight/Volume:	5 mL
Prep Date:	07/30/2013 0045				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cyclohexane	85	87	49 - 123	2	30		
1,2-Dibromo-3-Chloropropane	68	64	32 - 139	5	30		
1,2-Dibromoethane	91	89	74 - 113	2	30		
Dichlorodifluoromethane	86	80	17 - 128	7	30		
cis-1,2-Dichloroethene	96	98	70 - 120	3	30		
trans-1,2-Dichloroethene	95	96	80 - 119	1	30		
Isopropylbenzene	89	93	68 - 116	5	30		
Methyl acetate	92	90	47 - 130	3	30	J	J
Methyl tert-butyl ether	88	88	46 - 144	0	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	102	99	70 - 152	2	30		
1,2,4-Trichlorobenzene	51	58	38 - 138	13	30		
1,2-Dichlorobenzene	81	82	75 - 111	1	30		
1,3-Dichlorobenzene	82	84	73 - 110	3	30		
1,4-Dichlorobenzene	80	82	75 - 110	2	30		
Trichlorofluoromethane	103	96	46 - 157	7	30		
Dibromochloromethane	93	88	56 - 118	5	30		
Methylcyclohexane	83	84	49 - 127	1	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90	90	63 - 129
4-Bromofluorobenzene (Surr)	101	95	66 - 117
Toluene-d8 (Surr)	82	82	74 - 115
Dibromofluoromethane (Surr)	93	95	75 - 121

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-95368

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-27035-7	Units:	ug/L	MSD Lab Sample ID:	240-27035-7
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/30/2013 0024			Analysis Date:	07/30/2013 0045
Prep Date:	07/30/2013 0024			Prep Date:	07/30/2013 0045
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Acetone	10	U	20.0	20.0	17.5		15.9	
Benzene	0.13	J	10.0	10.0	9.90		9.89	
Bromodichloromethane	1.0	U	10.0	10.0	10.6		10.3	
Bromoform	1.0	U	10.0	10.0	9.21		8.98	
Bromomethane	1.0	U	10.0	10.0	10.7		11.0	
2-Butanone (MEK)	10	U	20.0	20.0	17.9		17.3	
Carbon disulfide	5.0	U	10.0	10.0	10.2		10.4	
Carbon tetrachloride	1.0	U	10.0	10.0	10.0		10.0	
Chlorobenzene	1.0	U	10.0	10.0	8.91		9.07	
Chloroethane	1.0	U	10.0	10.0	13.2		12.8	
Chloroform	1.0	U	10.0	10.0	10.1		10.1	
Chloromethane	1.0	U	10.0	10.0	9.02		8.30	
1,1-Dichloroethane	1.0	U	10.0	10.0	9.98		10.1	
1,2-Dichloroethane	1.0	U	10.0	10.0	10.0		10.1	
1,1-Dichloroethene	1.0	U	10.0	10.0	9.21		9.60	
1,2-Dichloropropane	1.0	U	10.0	10.0	9.86		9.77	
1,2,4-Trimethylbenzene	1.0	U	10.0	10.0	8.33		8.83	
cis-1,3-Dichloropropene	1.0	U	10.0	10.0	8.70		8.60	
trans-1,3-Dichloropropene	1.0	U	10.0	10.0	7.30		7.30	
Ethylbenzene	1.0	U	10.0	10.0	8.80		9.15	
2-Hexanone	10	U	20.0	20.0	17.4		16.4	
Methylene Chloride	5.0	U	10.0	10.0	8.55		8.47	
4-Methyl-2-pentanone (MIBK)	10	U	20.0	20.0	19.2		18.8	
Styrene	1.0	U	10.0	10.0	9.59		9.80	
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.0	7.65		7.53	
Tetrachloroethene	1.0	U	10.0	10.0	8.85		8.99	
Toluene	1.0	U	10.0	10.0	8.86		9.00	
Trichloroethene	1.0	U	10.0	10.0	9.97		10.3	
1,3,5-Trimethylbenzene	1.0	U	10.0	10.0	8.09		8.75	
Vinyl chloride	1.0	U	10.0	10.0	9.75		9.60	
Xylenes, Total	2.0	U	30.0	30.0	28.2		28.4	
1,1,1-Trichloroethane	1.0	U	10.0	10.0	10.2		10.0	
1,1,2-Trichloroethane	1.0	U	10.0	10.0	9.42		8.86	
Cyclohexane	1.0	U	10.0	10.0	8.47		8.67	
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	10.0	6.78		6.45	
1,2-Dibromoethane	1.0	U	10.0	10.0	9.10		8.94	
Dichlorodifluoromethane	1.0	U	10.0	10.0	8.57		8.02	
cis-1,2-Dichloroethene	1.0	U	10.0	10.0	9.56		9.81	
trans-1,2-Dichloroethene	1.0	U	10.0	10.0	9.46		9.60	
Isopropylbenzene	1.0	U	10.0	10.0	8.87		9.30	
Methyl acetate	10	U	10.0	10.0	9.25	J	8.98	J
Methyl tert-butyl ether	1.0	U	10.0	10.0	8.75		8.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.0	10.2		9.93	

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-27035-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-95368

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-27035-7	Units:	ug/L	MSD Lab Sample ID:	240-27035-7
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/30/2013 0024			Analysis Date:	07/30/2013 0045
Prep Date:	07/30/2013 0024			Prep Date:	07/30/2013 0045
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,2,4-Trichlorobenzene	1.0	U	10.0	10.0	5.11	5.83
1,2-Dichlorobenzene	1.0	U	10.0	10.0	8.09	8.21
1,3-Dichlorobenzene	1.0	U	10.0	10.0	8.20	8.44
1,4-Dichlorobenzene	1.0	U	10.0	10.0	8.00	8.18
Trichlorofluoromethane	1.0	U	10.0	10.0	10.3	9.60
Dibromochloromethane	1.0	U	10.0	10.0	9.31	8.85
Methylcyclohexane	1.0	U	10.0	10.0	8.35	8.41

DATA REPORTING QUALIFIERS

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-95231					
LCS 240-95231/4	Lab Control Sample	T	Water	8260B	
MB 240-95231/6	Method Blank	T	Water	8260B	
240-27035-1	GW-7097-071813-SK-001	T	Water	8260B	
240-27035-2	GW-7097-071813-SK-002	T	Water	8260B	
240-27035-3	GW-7097-071813-SK-003	T	Water	8260B	
240-27035-4	GW-7097-071813-SK-004	T	Water	8260B	
240-27035-5	GW-7097-071813-SK-005	T	Water	8260B	
240-27035-8	GW-7097-071813-SK-008	T	Water	8260B	
240-27035-9	TB-7097-071813-SK	T	Water	8260B	
Analysis Batch:240-95368					
LCS 240-95368/4	Lab Control Sample	T	Water	8260B	
MB 240-95368/6	Method Blank	T	Water	8260B	
240-27035-6	GW-7097-071813-SK-006	T	Water	8260B	
240-27035-7	GW-7097-071813-SK-007	T	Water	8260B	
240-27035-7MS	Matrix Spike	T	Water	8260B	
240-27035-7MSD	Matrix Spike Duplicate	T	Water	8260B	

Report Basis
T = Total

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Laboratory Chronicle

Lab ID: 240-27035-1 **Client ID:** GW-7097-071813-SK-001

Sample Date/Time: 07/18/2013 11:00 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-1		240-95231		07/27/2013 19:26	1	TAL CAN	LRW
A:8260B	240-27035-B-1		240-95231		07/27/2013 19:26	1	TAL CAN	LRW

Lab ID: 240-27035-2 **Client ID:** GW-7097-071813-SK-002

Sample Date/Time: 07/18/2013 11:20 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-2		240-95231		07/27/2013 19:48	1	TAL CAN	LRW
A:8260B	240-27035-B-2		240-95231		07/27/2013 19:48	1	TAL CAN	LRW

Lab ID: 240-27035-3 **Client ID:** GW-7097-071813-SK-003

Sample Date/Time: 07/18/2013 11:55 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-3		240-95231		07/27/2013 20:10	1	TAL CAN	LRW
A:8260B	240-27035-B-3		240-95231		07/27/2013 20:10	1	TAL CAN	LRW

Lab ID: 240-27035-4 **Client ID:** GW-7097-071813-SK-004

Sample Date/Time: 07/18/2013 12:40 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-4		240-95231		07/27/2013 20:32	1	TAL CAN	LRW
A:8260B	240-27035-B-4		240-95231		07/27/2013 20:32	1	TAL CAN	LRW

Lab ID: 240-27035-5 **Client ID:** GW-7097-071813-SK-005

Sample Date/Time: 07/18/2013 13:30 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-5		240-95231		07/27/2013 20:54	1	TAL CAN	LRW
A:8260B	240-27035-B-5		240-95231		07/27/2013 20:54	1	TAL CAN	LRW

Lab ID: 240-27035-6 **Client ID:** GW-7097-071813-SK-006

Sample Date/Time: 07/18/2013 14:25 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-6		240-95368		07/29/2013 17:27	1	TAL CAN	LRW
A:8260B	240-27035-B-6		240-95368		07/29/2013 17:27	1	TAL CAN	LRW

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Laboratory Chronicle

Lab ID: 240-27035-7 **Client ID:** GW-7097-071813-SK-007

Sample Date/Time: 07/18/2013 15:15 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-D-7		240-95368		07/30/2013 00:01	1	TAL CAN	LRW
A:8260B	240-27035-D-7		240-95368		07/30/2013 00:01	1	TAL CAN	LRW

Lab ID: 240-27035-7 **Client ID:** GW-7097-071813-SK-007

Sample Date/Time: 07/18/2013 15:15 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-E-7 MS		240-95368		07/30/2013 00:24	1	TAL CAN	LRW
A:8260B	240-27035-E-7 MS		240-95368		07/30/2013 00:24	1	TAL CAN	LRW

Lab ID: 240-27035-7 **Client ID:** GW-7097-071813-SK-007

Sample Date/Time: 07/18/2013 15:15 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-F-7 MSD		240-95368		07/30/2013 00:45	1	TAL CAN	LRW
A:8260B	240-27035-F-7 MSD		240-95368		07/30/2013 00:45	1	TAL CAN	LRW

Lab ID: 240-27035-8 **Client ID:** GW-7097-071813-SK-008

Sample Date/Time: 07/18/2013 16:50 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-B-8		240-95231		07/27/2013 21:38	1	TAL CAN	LRW
A:8260B	240-27035-B-8		240-95231		07/27/2013 21:38	1	TAL CAN	LRW

Lab ID: 240-27035-9 **Client ID:** TB-7097-071813-SK

Sample Date/Time: 07/18/2013 00:00 Received Date/Time: 07/19/2013 09:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-27035-A-9		240-95231		07/27/2013 22:00	1	TAL CAN	LRW
A:8260B	240-27035-A-9		240-95231		07/27/2013 22:00	1	TAL CAN	LRW

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 240-95231/6		240-95231		07/27/2013 14:39	1	TAL CAN	LRW
A:8260B	MB 240-95231/6		240-95231		07/27/2013 14:39	1	TAL CAN	LRW
P:5030B	MB 240-95368/6		240-95368		07/29/2013 16:43	1	TAL CAN	LRW
A:8260B	MB 240-95368/6		240-95368		07/29/2013 16:43	1	TAL CAN	LRW

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-27035-1

Laboratory Chronicle

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 240-95231/4		240-95231		07/27/2013 13:54	1	TAL CAN	LRW
A:8260B	LCS 240-95231/4		240-95231		07/27/2013 13:54	1	TAL CAN	LRW
P:5030B	LCS 240-95368/4		240-95368		07/29/2013 15:59	1	TAL CAN	LRW
A:8260B	LCS 240-95368/4		240-95368		07/29/2013 15:59	1	TAL CAN	LRW

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VM50IS_00027	07/13/13	04/13/13	MEOH, Lot 124454	50 mL	VMSTM520_00016	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VMSTM520_00016	12/31/14	Ultra Scientific, Lot CH-3660			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm50ss_00114	07/09/13	07/02/13	MEOH, Lot na	2 mL	vm50ss_stk_00053	2 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00053	12/04/13	06/04/13	MEOH, Lot K08E01	50 mL	VMstm530_00020	1 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VMstm530_00020	05/31/15	Ultra Scientific, Lot CJ-1280			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00051	07/25/13	04/25/13	MEOH, Lot 124454	50 mL	VMstm530_00019	1 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VMstm530_00019	05/31/15	Ultra Scientific, Lot CJ-1280			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00054	01/06/14	07/01/13	MEOH, Lot K08E01	50 mL	VMstm530_00020	1 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VMstm530_00020	05/31/15	Ultra Scientific, Lot CJ-1280			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VMCGAS_00128	07/04/13	06/27/13	MEOH, Lot 124454	10 mL	VMDWM544_00014	250 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMDWM544_00014	05/31/16	ULTRA, Lot CK-1182			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMCGAS_00131	07/29/13	07/22/13	MEOH, Lot 124454	10 mL	VMDWM544_00013	250 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMDWM544_00013	02/29/16		ULTRA, Lot CK-0275		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
VMFASWS_00155	07/07/13	06/30/13	MEOH, Lot na	3 mL	VMFAS_00042	3 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Benzene	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							o-Xylene	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	75 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							2-Butanone (MEK)	50 ug/mL
							2-Hexanone	50 ug/mL
							4-Methyl-2-pentanone (MIBK)	50 ug/mL
							Acetone	50 ug/mL
.VMFAS_00042	07/18/13	06/18/13	MEOH, Lot 124454	100 mL	VM48799U_00014	1.25 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VM556005_00025	1 mL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Benzene	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							o-Xylene	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	75 ug/mL
					VM563136_00007	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
					VM861149_00025	2.5 mL	2-Butanone (MEK)	50 ug/mL
							2-Hexanone	50 ug/mL
							4-Methyl-2-pentanone (MIBK)	50 ug/mL
							Acetone	50 ug/mL
..VM48799U_00014	01/31/14	Supelco, Lot LB96394			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
..VM556005_00025	10/31/14	Restek, Lot A094466			(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	5000 ug/mL
							Methyl acetate	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	7500 ug/mL
..VM563136_00007	11/30/16	Restek, Lot A085140			(Purchased Reagent)		1,2,4-Trimethylbenzene	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
..VM861149_00025	11/30/13	Supelco, Lot LB85301			(Purchased Reagent)		2-Butanone (MEK)	2000 ug/mL
							2-Hexanone	2000 ug/mL
							4-Methyl-2-pentanone (MIBK)	2000 ug/mL
							Acetone	2000 ug/mL
VMFASWS_00159	07/31/13	07/27/13	MEOH, Lot na	3 mL	VMFAS_00043	3 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							Methyl acetate	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	75 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							2-Butanone (MEK)	50 ug/mL
							2-Hexanone	50 ug/mL
							4-Methyl-2-pentanone (MIBK)	50 ug/mL
							Acetone	50 ug/mL
.VMFAS_00043	07/31/13	07/19/13	MEOH, Lot 124454	100 mL	VM48799U_00014	1.25 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VM556005_00024	1 mL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Benzene	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							Methyl acetate	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	75 ug/mL
					VM563136_00007	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
					VM861149_00014	2.5 mL	2-Butanone (MEK)	50 ug/mL
							2-Hexanone	50 ug/mL
							4-Methyl-2-pentanone (MIBK)	50 ug/mL
							Acetone	50 ug/mL
..VM48799U_00014	01/31/14	Supelco, Lot LB96394			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
..VM556005_00024	10/31/14	Restek, Lot A094466			(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							Methyl acetate	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	7500 ug/mL
..VM563136_00007	11/30/16		Restek, Lot A085140		(Purchased Reagent)		1,2,4-Trimethylbenzene	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
..VM861149_00014	11/30/13		Supelco, Lot LB85301		(Purchased Reagent)		2-Butanone (MEK)	2000 ug/mL
							2-Hexanone	2000 ug/mL
							4-Methyl-2-pentanone (MIBK)	2000 ug/mL
							Acetone	2000 ug/mL
VMPRIMARY_00193	07/09/13	07/02/13	MEOH, Lot na	1 mL	VMCUS7814_00022	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	2500 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMCUS7814_00022	01/31/15	Ultra Scientific, Lot CJ-4366			(Purchased Reagent)		1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	2500 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
VMPRIMARY_00197	08/02/13	07/26/13	MEOH, Lot na	1 mL	VMCUS7814_00022	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	150 ug/mL
.VMCUS7814_00022	01/31/15	Ultra Scientific, Lot CJ-4366			(Purchased Reagent)		1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	150 ug/mL
VMSUPPW_00135	07/09/13	07/02/13	MEOH, Lot na	1 mL	VMSUPP_00021	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							Methyl acetate	50 ug/mL
							Vinyl acetate	50 ug/mL
							Acetonitrile	500 ug/mL
							Acrolein	500 ug/mL
							Acrylonitrile	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
.VMSUPP_00021	08/29/13	05/29/13	MEOH, Lot 124454	50 mL	VM30006_00015	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VMCU5013_00011	1 mL	Methyl acetate	50 ug/mL
							Vinyl acetate	50 ug/mL
					VMCUS8634_00010	1 mL	Acetonitrile	500 ug/mL
							Acrolein	500 ug/mL
							Acrylonitrile	100 ug/mL
					VMEPA1016_00006	1 mL	2-Chloroethyl vinyl ether	100 ug/mL
..VM30006_00015	12/31/15	Restek, Lot A090791			(Purchased Reagent)		2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
..VMCU5013_00011	09/30/13	Ultra, Lot CK-1499			(Purchased Reagent)		Methyl acetate	2500 ug/mL
							Vinyl acetate	2500 ug/mL
..VMCUS8634_00010	09/30/13	Ultra, Lot CK-1498			(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Acrolein	25000 ug/mL
							Acrylonitrile	5000 ug/mL
..VMEPA1016_00006	06/30/14	Ultra, Lot CG-0850A			(Purchased Reagent)		2-Chloroethyl vinyl ether	5000 ug/mL
VMSUPPW_00139	08/02/13	07/26/13	MEOH, Lot na	1 mL	VMSUPP_00021	1 mL	2-Butanone (MEK)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							Methyl acetate	50 ug/mL
.VMSUPP_00021	08/29/13	05/29/13	MEOH, Lot 124454	50 mL	VM30006_00015	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VMCU5013_00011	1 mL	Methyl acetate	50 ug/mL
..VM30006_00015	12/31/15	Restek, Lot A090791			(Purchased Reagent)		2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
..VMCU5013_00011	09/30/13	Ultra, Lot CK-1499			(Purchased Reagent)		Methyl acetate	2500 ug/mL

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

REC'D 7-18-13

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A090791

Description : VOA Calibration Mix #1

Calibration Std #1 ketones 5000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone **CAS #** 67-64-1 **Purity** 99%	5,000.0 µg/mL	+/- 29.0704 +/- 399.3449 +/- 399.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99%	5,000.0 µg/mL	+/- 29.0704 +/- 399.3449 +/- 399.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99%	5,000.0 µg/mL	+/- 29.0704 +/- 399.3449 +/- 399.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** ----%	5,000.0 µg/mL	+/- 29.0704 +/- 399.3449 +/- 399.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

VM48799U_00014

Certificate of Analysis

DESCRIPTION: Volatile Organic Compounds Mix 6

CATALOG NO.: 48799-U MFG DATE: Oct-2012

LOT NO.: LB96394 EXPIRATION DATE: Jan-2014

SOLVENT: METHANOL

ANALYTE (1)	CAS NUMBER	PERCENT PURITY(2)	WEIGHT(3) CONCENTRATION	ANALYTICAL(4) CONCENTRATION		STD DEV	SUPELCO LOT NO
BROMOMETHANE	74-83-9	99.9 (a)	2000	2193	+/-	42.8	LB22203
CHLOROETHANE	75-00-3	99.9 (a)	2000	2223	+/-	61.5	LB55667
CHLOROMETHANE	74-87-3	99.9	2000	2168	+/-	18.7	LB64986
DICHLORODIFLUOROMETHANE	75-71-8	99.9 (a)	2000	2130	+/-	43.5	LB68837
TRICHLOROFLUOROMETHANE	75-69-4	99.9 (a)	2000	2118	+/-	69.9	LA91320
VINYL CHLORIDE	75-01-4	99.9 (a)	2000	2263	+/-	22.6	LB89571

(1) Listed in alphabetical order.

(2) Determined by capillary GC-FID, unless otherwise noted.
a) GC; detector HALL

(3) NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, uncertainty based upon balance and Class A volumetric glassware. Weights are corrected for analytes less than 98% pure.

(4) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections.

Duane Funk

Duane Funk
Quality Manager

Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

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Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 556005 **Lot No.:** A094466

Description : Custom Volatiles Mix 2

Custom Volatiles Mix 2 2500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 2014 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	2,500.2 µg/mL	+/- 14.6724 +/- 30.2025 +/- 34.0630	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,500.0 µg/mL	+/- 17.8401 +/- 31.8601 +/- 35.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,500.0 µg/mL	+/- 14.6713 +/- 30.2001 +/- 34.0603	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,500.0 µg/mL	+/- 17.8402 +/- 31.8604 +/- 35.5408	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 98%	2,500.0 µg/mL	+/- 17.8401 +/- 31.8601 +/- 35.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	trans-1,2-Dichloroethene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
11	chloroform	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
12	1,1,1-trichloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
13	Cyclohexane	2,500.0	µg/mL	+/-	14.6713	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	30.2001	µg/mL	Unstressed
	Purity 98%			+/-	34.0603	µg/mL	Stressed
14	carbon tetrachloride	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
15	1,2-Dichloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
16	Benzene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
17	Trichloroethene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
18	Methylcyclohexane	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
19	1,2-Dichloropropane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
20	bromodichloromethane	2,500.0	µg/mL	+/-	17.8401	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	31.8603	µg/mL	Unstressed
	Purity 97%			+/-	35.5407	µg/mL	Stressed
21	cis-1,3-Dichloropropene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
22	Toluene	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
23	trans-1,3-Dichloropropene	2,500.0	µg/mL	+/-	17.8401	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	31.8603	µg/mL	Unstressed
	Purity 97%			+/-	35.5407	µg/mL	Stressed
24	1,1,2-Trichloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
25	Tetrachloroethene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
26	dibromochloromethane	2,500.0	µg/mL	+/-	17.8401	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	31.8601	µg/mL	Unstressed
	Purity 98%			+/-	35.5405	µg/mL	Stressed
27	1,2-Dibromoethane (EDB)	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
28	Chlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed

29	Ethylbenzene	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
30	m-Xylene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
31	p-Xylene	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
32	o-Xylene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
33	Styrene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
34	Isopropylbenzene (cumene)	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
35	bromoform	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
36	1,1,2,2-Tetrachloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
37	1,3-Dichlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
38	1,4-Dichlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
39	1,2-Dichlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 95-50-1			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
40	1,2-Dibromo-3-chloropropane	2,499.5	µg/mL	+/-	14.6685	µg/mL	Gravimetric
	CAS # 96-12-8			+/-	30.1943	µg/mL	Unstressed
	Purity 99%			+/-	34.0538	µg/mL	Stressed
41	1,2,4-Trichlorobenzene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 120-82-1			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 556005 **Lot No.:** A094466

Description : Custom Volatiles Mix 2

Custom Volatiles Mix 2 2500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 2014 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	2,500.2 µg/mL	+/- 14.6724 +/- 30.2025 +/- 34.0630	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,500.0 µg/mL	+/- 17.8401 +/- 31.8601 +/- 35.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,500.0 µg/mL	+/- 14.6713 +/- 30.2001 +/- 34.0603	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,500.0 µg/mL	+/- 17.8402 +/- 31.8604 +/- 35.5408	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	2,500.0 µg/mL	+/- 14.6714 +/- 30.2004 +/- 34.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 98%	2,500.0 µg/mL	+/- 17.8401 +/- 31.8601 +/- 35.5405	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	trans-1,2-Dichloroethene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
11	chloroform	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
12	1,1,1-trichloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
13	Cyclohexane	2,500.0	µg/mL	+/-	14.6713	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	30.2001	µg/mL	Unstressed
	Purity 98%			+/-	34.0603	µg/mL	Stressed
14	carbon tetrachloride	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
15	1,2-Dichloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
16	Benzene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
17	Trichloroethene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
18	Methylcyclohexane	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
19	1,2-Dichloropropane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
20	bromodichloromethane	2,500.0	µg/mL	+/-	17.8401	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	31.8603	µg/mL	Unstressed
	Purity 97%			+/-	35.5407	µg/mL	Stressed
21	cis-1,3-Dichloropropene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
22	Toluene	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
23	trans-1,3-Dichloropropene	2,500.0	µg/mL	+/-	17.8401	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	31.8603	µg/mL	Unstressed
	Purity 97%			+/-	35.5407	µg/mL	Stressed
24	1,1,2-Trichloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
25	Tetrachloroethene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
26	dibromochloromethane	2,500.0	µg/mL	+/-	17.8401	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	31.8601	µg/mL	Unstressed
	Purity 98%			+/-	35.5405	µg/mL	Stressed
27	1,2-Dibromoethane (EDB)	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
28	Chlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed

29	Ethylbenzene	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
30	m-Xylene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
31	p-Xylene	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
32	o-Xylene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
33	Styrene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed
34	Isopropylbenzene (cumene)	2,500.5	µg/mL	+/-	14.6743	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	30.2064	µg/mL	Unstressed
	Purity 99%			+/-	34.0674	µg/mL	Stressed
35	bromoform	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
36	1,1,2,2-Tetrachloroethane	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
37	1,3-Dichlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
38	1,4-Dichlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
39	1,2-Dichlorobenzene	2,500.0	µg/mL	+/-	17.8402	µg/mL	Gravimetric
	CAS # 95-50-1			+/-	31.8604	µg/mL	Unstressed
	Purity 99%			+/-	35.5408	µg/mL	Stressed
40	1,2-Dibromo-3-chloropropane	2,499.5	µg/mL	+/-	14.6685	µg/mL	Gravimetric
	CAS # 96-12-8			+/-	30.1943	µg/mL	Unstressed
	Purity 99%			+/-	34.0538	µg/mL	Stressed
41	1,2,4-Trichlorobenzene	2,500.0	µg/mL	+/-	14.6714	µg/mL	Gravimetric
	CAS # 120-82-1			+/-	30.2004	µg/mL	Unstressed
	Purity 99%			+/-	34.0606	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

11/22/11
TS

RESTEK

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Certificate of Analysis

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Catalog No. : 563136 **Lot No.:** A085140

Description : Custom Revised Supplemental Spike Mix

Container Size : [5] 2 mL **Pkg Amt:** [5] > 1 mL

Expiration Date : [1] November 2016 **Storage:** 0°C or colder

Elution Order	Compound	CAS #	Percent Purity [2]	Grav. Conc. (weight/volume) [3]	Grav.Uncert. (95% C.L.; K=2) [4]
1	Diethyl ether (ethyl ether)	60-29-7	98%	2,500.2 ug/mL	+/- 14.6724 ug/mL
2	tert-Butanol (TBA)	75-65-0	99%	50,001.6 ug/mL	+/- 292.755 ug/mL
3	Iodomethane (methyl iodide)	74-88-4	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
4	Diisopropyl ether (DIPE)	108-20-3	99%	2,500.4 ug/mL	+/- 14.6737 ug/mL
5	2,2-Dichloropropane	594-20-7	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
6	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	125,004.4 ug/mL	+/- 731.89 ug/mL
7	Bromochloromethane	74-97-5	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
8	Tetrahydrofuran	109-99-9	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
9	1,1-Dichloropropene	563-58-6	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
10	Dibromomethane	74-95-3	98%	2,500.2 ug/mL	+/- 14.6724 ug/mL
11	1,3-Dichloropropane	142-28-9	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
12	1,1,1,2-Tetrachloroethane	630-20-6	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
13	1,2,3-Trichloropropane	96-18-4	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
14	trans-1,4-dichloro-2-butene	110-57-6	98%	5,008.2 ug/mL	+/- 29.3241 ug/mL
15	n-Propylbenzene	103-65-1	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
16	Bromobenzene	108-86-1	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
17	1,3,5-Trimethylbenzene	108-67-8	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
18	2-Chlorotoluene	95-49-8	99%	2,501.2 ug/mL	+/- 14.6784 ug/mL
19	4-Chlorotoluene	106-43-4	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
20	tert-Butylbenzene	98-06-6	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
21	1,2,4-Trimethylbenzene	95-63-6	99%	2,500.4 ug/mL	+/- 14.6737 ug/mL
22	sec-Butylbenzene	135-98-8	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
23	4-Isopropyltoluene (p-Cymene)	99-87-6	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
24	1,2,3-Trimethylbenzene	526-73-8	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
25	n-Butylbenzene	104-51-8	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
26	Hexachlorobutadiene	87-68-3	98%	2,500.2 ug/mL	+/- 14.6724 ug/mL
27	Naphthalene	91-20-3	99%	2,500.0 ug/mL	+/- 14.6714 ug/mL
28	1,2,3-Trichlorobenzene	87-61-6	99%	2,500.4 ug/mL	+/- 14.6737 ug/mL

Certificate of Analysis

1/3/12
TB

DESCRIPTION: 8260 Ketones Mix

CATALOG NO.: 861149

MFG DATE: Jun-2011

LOT NO.: LB85301

EXPIRATION DATE: Nov-2013

SOLVENT: METHANOL:WATER (30:70)

ANALYTE (1)	CAS NUMBER	PERCENT PURITY(2)	WEIGHT(3) CONCENTRATION	ANALYTICAL(4) CONCENTRATION	STD DEV	SUPELCO LOT NO
ACETONE	67-64-1	99.9	2000	1891	+/- 75.1	LB60265
CYCLOHEXANONE	108-94-1	99.5	20002	18806	+/- 673.6	LB67851
2-BUTANONE	78-93-3	99.9	2001	1888	+/- 78.2	LB38154
2-HEXANONE	591-78-6	99.9	2001	1877	+/- 70.9	LB57500
4-METHYL-2-PENTANONE	108-10-1	99.9	2001	1910	+/- 71.4	LB80301

VM 861149 ~~LB~~ 1-11-12
00014

(1) Listed in alphabetical order.
(2) Determined by capillary GC-FID, unless otherwise noted.
(3) NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, uncertainty based upon balance and Class A volumetric glassware. Weights are corrected for analytes less than 98% pure.
(4) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections.

Elwood Doughty
Quality Control Supervisor

Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

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Rec'd 9/27/12 TB

DESCRIPTION: 8260 Ketones Mix

CATALOG NO.: 861149 MFG DATE: Jun-2011

LOT NO.: LB85301 EXPIRATION DATE: Nov-2013

SOLVENT: METHANOL:WATER (30:70)

ANALYTE (1)	CAS NUMBER	PERCENT PURITY(2)	WEIGHT(3) CONCENTRATION	ANALYTICAL(4) CONCENTRATION		STD DEV	SUPELCO LOT NO
ACETONE	67-64-1	99.9	2000	1891	+/-	75.1	LB60265
CYCLOHEXANONE	108-94-1	99.5	20002	18806	+/-	673.6	LB67851
2-BUTANONE	78-93-3	99.9	2001	1888	+/-	78.2	LB38154
2-HEXANONE	591-78-6	99.9	2001	1877	+/-	70.9	LB57500
4-METHYL-2-PENTANONE	108-10-1	99.9	2001	1910	+/-	71.4	LB80301

(1) Listed in alphabetical order.
(2) Determined by capillary GC-FID, unless otherwise noted.
(3) NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, uncertainty based upon balance and Class A volumetric glassware. Weights are corrected for analytes less than 98% pure.
(4) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections.

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Custom Standard

Product Number: CUS-5013 **Page:** 1 of 1

Lot Number: CK-1499 **Lot Issue Date:** 06-May-2013 **Expiration Date:** 30-Sep-2013

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA Scientific's ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
vinyl acetate	000108-05-4	RM04478	2511 ± 13 µg/mL
methyl acetate	000079-20-9	NT02091	2509 ± 13 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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Quality Assurance Manager

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Product Number: CUS-7814 **Page:** 1 of 4

Lot Number: CJ-4366 **Lot Issue Date:** 10-Dec-2012 **Expiration Date:** 31-Jan-2015

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA Scientific's ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
1,1,2-trichlorotrifluoroethane	000076-13-1	RM04487	50.2 ± 0.3 µg/mL
methyl iodide	000074-88-4	RM04128	50.2 ± 0.3 µg/mL
carbon disulfide	000075-15-0	RM04258	50.2 ± 0.3 µg/mL
methylene chloride	000075-09-2	RM01647	50.2 ± 0.3 µg/mL
tert-butanol	000075-65-0	RM00555	1004 ± 5 µg/mL
1,1-dichloroethene	000075-35-4	RM01356	50.2 ± 0.3 µg/mL
1,1-dichloroethane	000075-34-3	RM00019	50.2 ± 0.3 µg/mL
trans-1,2-dichloroethene	000156-60-5	01306HD	50.2 ± 0.3 µg/mL
MTBE	001634-04-4	RM05302	50.2 ± 0.3 µg/mL
n-hexane	000110-54-3	NT00436	50.2 ± 0.3 µg/mL
cis-1,2-dichloroethene	000156-59-2	RM01500	50.2 ± 0.3 µg/mL
tetrahydrofuran	000109-99-9	RM05587	50.2 ± 0.3 µg/mL
chloroform	000067-66-3	RM01693	50.2 ± 0.3 µg/mL
1,2-dichloroethane	000107-06-2	RM02111	50.2 ± 0.3 µg/mL
dibromomethane	000074-95-3	RM02090	50.2 ± 0.3 µg/mL
1,4-dioxane	000123-91-1	RM02104	2503 ± 13 µg/mL
1,1,1-trichloroethane	000071-55-6	RM00027	50.2 ± 0.3 µg/mL
carbon tetrachloride	000056-23-5	RM00012	50.2 ± 0.3 µg/mL
bromodichloromethane	000075-27-4	10529HD	50.2 ± 0.3 µg/mL

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Product Number: CUS-7814 **Page:** 2 of 4

Lot Number: CJ-4366 **Lot Issue Date:** 10-Dec-2012 **Expiration Date:** 31-Jan-2015

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA Scientific's ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

1,2-dichloropropane	000078-87-5	RM02091	50.2 ± 0.3 µg/mL
cis-1,3-dichloropropene	010061-01-5	RM01442	50.2 ± 0.3 µg/mL
trichloroethene	000079-01-6	RM00029	50.2 ± 0.3 µg/mL
dibromochloromethane	000124-48-1	07705AN	50.2 ± 0.3 µg/mL
1,2-dibromoethane	000106-93-4	RM00018	50.2 ± 0.3 µg/mL
1,2,3-trichloropropane	000096-18-4	RM02562	50.2 ± 0.3 µg/mL
1,1,2-trichloroethane	000079-00-5	RM02575	50.2 ± 0.3 µg/mL
benzene	000071-43-2	RM03830	50.2 ± 0.3 µg/mL
ethyl methacrylate	000097-63-2	RM04592	50.2 ± 0.3 µg/mL
trans-1,3-dichloropropene	010061-02-6	RM01443	50.2 ± 0.3 µg/mL
bromoform	000075-25-2	RM01801	50.2 ± 0.3 µg/mL
tetrachloroethene	000127-18-4	RM00026	50.2 ± 0.3 µg/mL
toluene	000108-88-3	RM02555	50.2 ± 0.3 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	RM02540	50.2 ± 0.3 µg/mL
chlorobenzene	000108-90-7	RM01874	50.2 ± 0.3 µg/mL
ethylbenzene	000100-41-4	RM00783	50.2 ± 0.3 µg/mL
styrene	000100-42-5	LR-11228MQ	50.2 ± 0.3 µg/mL
trans-1,4-dichloro-2-butene	000110-57-6	RM04930	50.2 ± 0.3 µg/mL
m-xylene	000108-38-3	RM00053	50.2 ± 0.3 µg/mL

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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Product Number: CUS-7814 **Page:** 3 of 4

Lot Number: CJ-4366 **Lot Issue Date:** 10-Dec-2012 **Expiration Date:** 31-Jan-2015

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA Scientific's ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

p-xylene	000106-42-3	RM02647	50.2 ± 0.3 µg/mL
o-xylene	000095-47-6	RM00052	50.2 ± 0.3 µg/mL
1,3-dichlorobenzene	000541-73-1	RM00061	50.2 ± 0.3 µg/mL
1,4-dichlorobenzene	000106-46-7	RM01501	50.2 ± 0.3 µg/mL
1,2-dichlorobenzene	000095-50-1	RM00060	50.2 ± 0.3 µg/mL
bromochloromethane	000074-97-5	RM00009	50.2 ± 0.3 µg/mL
bromobenzene	000108-86-1	RM00056	50.2 ± 0.3 µg/mL
isopropylbenzene	000098-82-8	RM02285	50.2 ± 0.3 µg/mL
n-propylbenzene	000103-65-1	RM02468	50.2 ± 0.3 µg/mL
n-butylbenzene	000104-51-8	RM01802	50.2 ± 0.3 µg/mL
sec-butylbenzene	000135-98-8	RM01800	50.2 ± 0.3 µg/mL
tert-butylbenzene	000098-06-6	RM01814	50.2 ± 0.3 µg/mL
1,2,4-trimethylbenzene	000095-63-6	RM00050	50.2 ± 0.3 µg/mL
1,3,5-trimethylbenzene	000108-67-8	RM02563	50.2 ± 0.3 µg/mL
1,2,3-trichlorobenzene	000087-61-6	RM02563	50.2 ± 0.3 µg/mL
1,2,4-trichlorobenzene	000120-82-1	RM00063	50.2 ± 0.3 µg/mL
1,1-dichloropropene	000563-58-6	RM01234	50.2 ± 0.3 µg/mL
1,3-dichloropropane	000142-28-9	RM02080	50.2 ± 0.3 µg/mL
2,2-dichloropropane	000594-20-7	01104EE	50.2 ± 0.3 µg/mL

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Product Number: CUS-7814 **Page:** 4 of 4

Lot Number: CJ-4366 **Lot Issue Date:** 10-Dec-2012 **Expiration Date:** 31-Jan-2015

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA Scientific's ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

2-chlorotoluene	000095-49-8	NT00290	50.2 ± 0.3 µg/mL
4-chlorotoluene	000106-43-4	RM01866	50.2 ± 0.3 µg/mL
4-isopropyltoluene	000099-87-6	RM00046	50.2 ± 0.3 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	RM02088	50.2 ± 0.3 µg/mL
hexachlorobutadiene	000087-68-3	RM02247	50.1 ± 0.3 µg/mL
1,1,1,2-tetrachloroethane	000630-20-6	RM02567	50.2 ± 0.3 µg/mL
naphthalene	000091-20-3	RM02406	50.2 ± 0.3 µg/mL
methyl acetate	000079-20-9	NT02091	50.2 ± 0.3 µg/mL
methylcyclohexane	000108-87-2	RM04641	50.2 ± 0.3 µg/mL
cyclohexane	000110-82-7	RM01880	50.2 ± 0.3 µg/mL
1,3,5-trichlorobenzene	000108-70-3	RM02554	50.2 ± 0.3 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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Product Number: CUS-8634 **Page:** 1 of 1

Lot Number: CK-1498 **Lot Issue Date:** 06-May-2013 **Expiration Date:** 30-Sep-2013

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA Scientific's ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
acrylonitrile	000107-13-1	RM05172	5023 ± 25 µg/mL
acetonitrile	000075-05-8	RM01645	25101 ± 126 µg/mL
acrolein	000107-02-8	RM04210	25108 ± 126 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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3/28/13
TB

VOC Gas Mixture

Product Number: DWM-544 **Page:** 1 of 1

Lot Number: CK-0275 **Lot Issue Date:** 31-Jan-2013 **Expiration Date:** 29-Feb-2016

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
bromomethane	000074-83-9	RM00064	2001 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2006 ± 10 µg/mL
chloromethane	000074-87-3	RM05290	2009 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2008 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2005 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05288	2008 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

VMDWM544_ 00013

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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VOC Gas Mixture

Product Number: DWM-544 **Page:** 1 of 1

Lot Number: CK-1182 **Lot Issue Date:** 10-Apr-2013 **Expiration Date:** 31-May-2016

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
bromomethane	000074-83-9	RM00064	2000 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2009 ± 10 µg/mL
chloromethane	000074-87-3	RM05290	2008 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2010 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2010 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05288	2010 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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Certificate of Analysis

12/13/12
TS

2-Chloroethylvinyl Ether Solution

Product Number: EPA-1016 **Page:** 1 of 1

Lot Number: CG-0850A **Lot Issue Date:** 03-May-2012 **Expiration Date:** 30-Jun-2014

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
2-chloroethylvinyl ether	000110-75-8	04606CJ	5015 ± 25 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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5-15-12

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Internal Standard Mixture

Product Number: STM-520 **Page:** 1 of 1

Lot Number: CH-3660 **Lot Issue Date:** 15-Nov-2011 **Expiration Date:** 31-Dec-2014

This Certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
chlorobenzene-d5	003114-55-4	RM01430-01	2503 ± 13 µg/mL
1,4-dichlorobenzene-d4	003855-82-1	RM01700-06	2500 ± 13 µg/mL
fluorobenzene	000462-06-6	RM03366-01	2513 ± 13 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

VMSTM520_00016

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

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William J. Leary
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2/15/13
TS

Method 8260 Surrogate Standard Mixture

Product Number: STM-530 **Page:** 1 of 1

Lot Number: CJ-1280 **Lot Issue Date:** 17-Apr-2012 **Expiration Date:** 31-May-2015

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
4-bromofluorobenzene	000460-00-4	RM03908-	2512 ± 13 µg/mL
dibromofluoromethane	001868-53-7	RM04871-01	2512 ± 13 µg/mL
1,2-dichloroethane-d4	017060-07-0	RM04304-	2512 ± 13 µg/mL
toluene-d8	002037-26-5	RM04138-	2512 ± 13 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

A2LA ACCREDITED
ISO 17025:2005 Accredited A2LA Cert. No. 0861-01

ISO 9001:2008 Registered TUV USA, Inc. Cert. No. 09-1008

250 Smith Street, North Kingstown, RI 02852 USA
401-294-9400 Fax: 295-2330
wwww.ultrasci.com

William J. Leary
Quality Assurance Manager

Certificate of Analysis

3/28/13
TS

ULTRA SCIENTIFIC
Analytical Solutions

Method 8260 Surrogate Standard Mixture

Product Number: STM-530 **Page:** 1 of 1

Lot Number: CJ-1280 **Lot Issue Date:** 17-Apr-2012 **Expiration Date:** 31-May-2015

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
4-bromofluorobenzene	000460-00-4	RM03908-	2512 ± 13 µg/mL
dibromofluoromethane	001868-53-7	RM04871-01	2512 ± 13 µg/mL
1,2-dichloroethane-d4	017060-07-0	RM04304-	2512 ± 13 µg/mL
toluene-d8	002037-26-5	RM04138-	2512 ± 13 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at < 4° C

STM530_00020

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

A2LA ACCREDITED
ISO 17025:2005 Accredited A2LA Cert. No. 0851-01

ISO 9001:2008 Registered TUV USA, Inc. Cert. No. 09-1008

250 Smith Street, North Kingstown, RI 02852 USA
401-294-9400 Fax: 295-2330
wwww.ultrasci.com

William J. Leary
Quality Assurance Manager

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 7097-T05-003, RACER PCC

TestAmerica Job ID: 240-27035-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	NELAP	9	01144CA
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Florida	NELAP	4	E87225
TestAmerica Canton	Georgia	State Program	4	N/A
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky	State Program	4	58
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	
TestAmerica Canton	USDA	Federal		P330-11-00328
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
GW-7097-071813-SK-001	240-27035-1	101	93	80	78
GW-7097-071813-SK-002	240-27035-2	99	93	77	74
GW-7097-071813-SK-003	240-27035-3	102	98	78	78
GW-7097-071813-SK-004	240-27035-4	101	95	76	73
GW-7097-071813-SK-005	240-27035-5	98	93	77	81
GW-7097-071813-SK-006	240-27035-6	97	91	80	70
GW-7097-071813-SK-007	240-27035-7	103	98	75	70
GW-7097-071813-SK-008	240-27035-8	103	97	79	74
TB-7097-071813-SK	240-27035-9	104	99	77	72
	MB 240-95231/6	95	92	75	75
	MB 240-95368/6	100	93	79	74
	LCS 240-95231/4	92	86	85	98
	LCS 240-95368/4	93	88	86	94
GW-7097-071813-SK-007 MS	240-27035-7 MS	93	90	82	101
GW-7097-071813-SK-007 MSD	240-27035-7 MSD	95	90	82	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6658.D

Lab ID: LCS 240-95231/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acetone	20.0	22.3	111	43-136	
Benzene	10.0	10.7	107	83-112	
Bromodichloromethane	10.0	10.7	107	72-121	
Bromoform	10.0	9.66	97	40-131	
Bromomethane	10.0	11.0	110	11-185	
2-Butanone (MEK)	20.0	20.2	101	60-126	
Carbon disulfide	10.0	11.1	111	62-142	
Carbon tetrachloride	10.0	10.6	106	66-128	
Chlorobenzene	10.0	9.53	95	85-110	
Chloroethane	10.0	12.4	124	25-153	
Chloroform	10.0	10.4	104	79-117	
Chloromethane	10.0	9.35	93	44-126	
1,1-Dichloroethane	10.0	10.5	105	82-115	
1,2-Dichloroethane	10.0	9.93	99	71-127	
1,1-Dichloroethene	10.0	10.2	102	78-131	
1,2-Dichloropropane	10.0	10.4	104	81-115	
1,2,4-Trimethylbenzene	10.0	9.64	96	76-120	
cis-1,3-Dichloropropene	10.0	9.69	97	61-115	
trans-1,3-Dichloropropene	10.0	7.90	79	58-117	
Ethylbenzene	10.0	9.82	98	83-112	
2-Hexanone	20.0	17.4	87	55-133	
Methylene Chloride	10.0	10.6	106	66-131	
4-Methyl-2-pentanone (MIBK)	20.0	18.8	94	63-128	
Styrene	10.0	10.3	103	79-114	
1,1,2,2-Tetrachloroethane	10.0	8.64	86	68-118	
Tetrachloroethene	10.0	9.40	94	79-114	
Toluene	10.0	9.56	96	84-111	
Trichloroethene	10.0	10.8	108	76-117	
1,3,5-Trimethylbenzene	10.0	9.63	96	72-118	
Vinyl chloride	10.0	9.61	96	53-127	
Xylenes, Total	30.0	29.9	100	83-112	
1,1,1-Trichloroethane	10.0	10.3	103	74-118	
1,1,2-Trichloroethane	10.0	9.41	94	80-112	
Cyclohexane	10.0	10.2	102	54-121	
1,2-Dibromo-3-Chloropropane	10.0	7.26	73	42-136	
1,2-Dibromoethane	10.0	9.40	94	79-113	
Dichlorodifluoromethane	10.0	8.93	89	19-129	
cis-1,2-Dichloroethene	10.0	10.7	107	80-113	
trans-1,2-Dichloroethene	10.0	10.4	104	83-117	
Isopropylbenzene	10.0	9.98	100	75-114	
Methyl acetate	10.0	10.1	101	58-131	
Methyl tert-butyl ether	10.0	9.76	98	52-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6658.D

Lab ID: LCS 240-95231/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.5	115	74-151	
1,2,4-Trichlorobenzene	10.0	6.07	61	48-135	
1,2-Dichlorobenzene	10.0	8.85	89	81-110	
1,3-Dichlorobenzene	10.0	9.03	90	80-110	
1,4-Dichlorobenzene	10.0	8.83	88	82-110	
Trichlorofluoromethane	10.0	10.4	104	49-157	
Dibromochloromethane	10.0	9.33	93	64-119	
Methylcyclohexane	10.0	10.3	103	56-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6685.D

Lab ID: LCS 240-95368/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acetone	20.0	24.3	121	43-136	
Benzene	10.0	10.3	103	83-112	
Bromodichloromethane	10.0	10.5	105	72-121	
Bromoform	10.0	9.09	91	40-131	
Bromomethane	10.0	12.0	120	11-185	
2-Butanone (MEK)	20.0	18.8	94	60-126	
Carbon disulfide	10.0	10.7	107	62-142	
Carbon tetrachloride	10.0	10.5	105	66-128	
Chlorobenzene	10.0	9.39	94	85-110	
Chloroethane	10.0	14.0	140	25-153	
Chloroform	10.0	10.3	103	79-117	
Chloromethane	10.0	9.83	98	44-126	
1,1-Dichloroethane	10.0	10.4	104	82-115	
1,2-Dichloroethane	10.0	10.1	101	71-127	
1,1-Dichloroethene	10.0	10.0	100	78-131	
1,2-Dichloropropane	10.0	10.4	104	81-115	
1,2,4-Trimethylbenzene	10.0	9.35	94	76-120	
cis-1,3-Dichloropropene	10.0	9.71	97	61-115	
trans-1,3-Dichloropropene	10.0	7.90	79	58-117	
Ethylbenzene	10.0	9.65	97	83-112	
2-Hexanone	20.0	17.5	87	55-133	
Methylene Chloride	10.0	9.20	92	66-131	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	63-128	
Styrene	10.0	10.1	101	79-114	
1,1,2,2-Tetrachloroethane	10.0	8.45	85	68-118	
Tetrachloroethene	10.0	9.69	97	79-114	
Toluene	10.0	9.59	96	84-111	
Trichloroethene	10.0	10.5	105	76-117	
1,3,5-Trimethylbenzene	10.0	9.30	93	72-118	
Vinyl chloride	10.0	9.86	99	53-127	
Xylenes, Total	30.0	29.4	98	83-112	
1,1,1-Trichloroethane	10.0	10.2	102	74-118	
1,1,2-Trichloroethane	10.0	9.84	98	80-112	
Cyclohexane	10.0	9.91	99	54-121	
1,2-Dibromo-3-Chloropropane	10.0	7.26	73	42-136	
1,2-Dibromoethane	10.0	9.80	98	79-113	
Dichlorodifluoromethane	10.0	9.11	91	19-129	
cis-1,2-Dichloroethene	10.0	10.2	102	80-113	
trans-1,2-Dichloroethene	10.0	9.80	98	83-117	
Isopropylbenzene	10.0	9.68	97	75-114	
Methyl acetate	10.0	10.8	108	58-131	
Methyl tert-butyl ether	10.0	9.42	94	52-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6685.D

Lab ID: LCS 240-95368/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.3	113	74-151	
1,2,4-Trichlorobenzene	10.0	6.00	60	48-135	
1,2-Dichlorobenzene	10.0	8.63	86	81-110	
1,3-Dichlorobenzene	10.0	8.94	89	80-110	
1,4-Dichlorobenzene	10.0	8.62	86	82-110	
Trichlorofluoromethane	10.0	10.6	106	49-157	
Dibromochloromethane	10.0	9.48	95	64-119	
Methylcyclohexane	10.0	9.83	98	56-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6708.D

Lab ID: 240-27035-7 MS Client ID: GW-7097-071813-SK-007 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Acetone	20.0	10 U	17.5	87	33-145	
Benzene	10.0	0.13 J	9.90	99	72-121	
Bromodichloromethane	10.0	1.0 U	10.6	106	67-120	
Bromoform	10.0	1.0 U	9.21	92	32-128	
Bromomethane	10.0	1.0 U	10.7	107	10-186	
2-Butanone (MEK)	20.0	10 U	17.9	89	54-129	
Carbon disulfide	10.0	5.0 U	10.2	102	57-147	
Carbon tetrachloride	10.0	1.0 U	10.0	100	59-129	
Chlorobenzene	10.0	1.0 U	8.91	89	80-110	
Chloroethane	10.0	1.0 U	13.2	132	21-165	
Chloroform	10.0	1.0 U	10.1	101	76-118	
Chloromethane	10.0	1.0 U	9.02	90	33-132	
1,1-Dichloroethane	10.0	1.0 U	9.98	100	79-116	
1,2-Dichloroethane	10.0	1.0 U	10.0	100	68-129	
1,1-Dichloroethene	10.0	1.0 U	9.21	92	74-135	
1,2-Dichloropropane	10.0	1.0 U	9.86	99	78-115	
1,2,4-Trimethylbenzene	10.0	1.0 U	8.33	83	67-124	
cis-1,3-Dichloropropene	10.0	1.0 U	8.70	87	51-110	
trans-1,3-Dichloropropene	10.0	1.0 U	7.30	73	46-116	
Ethylbenzene	10.0	1.0 U	8.80	88	75-116	
2-Hexanone	20.0	10 U	17.4	87	47-139	
Methylene Chloride	10.0	5.0 U	8.55	85	63-128	
4-Methyl-2-pentanone (MIBK)	20.0	10 U	19.2	96	56-131	
Styrene	10.0	1.0 U	9.59	96	71-117	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	7.65	77	63-122	
Tetrachloroethene	10.0	1.0 U	8.85	89	70-117	
Toluene	10.0	1.0 U	8.86	89	78-114	
Trichloroethene	10.0	1.0 U	9.97	100	66-120	
1,3,5-Trimethylbenzene	10.0	1.0 U	8.09	81	63-121	
Vinyl chloride	10.0	1.0 U	9.75	97	49-130	
Xylenes, Total	30.0	2.0 U	28.2	94	76-116	
1,1,1-Trichloroethane	10.0	1.0 U	10.2	102	68-121	
1,1,2-Trichloroethane	10.0	1.0 U	9.42	94	75-115	
Cyclohexane	10.0	1.0 U	8.47	85	49-123	
1,2-Dibromo-3-Chloropropane	10.0	1.0 U	6.78	68	32-139	
1,2-Dibromoethane	10.0	1.0 U	9.10	91	74-113	
Dichlorodifluoromethane	10.0	1.0 U	8.57	86	17-128	
cis-1,2-Dichloroethene	10.0	1.0 U	9.56	96	70-120	
trans-1,2-Dichloroethene	10.0	1.0 U	9.46	95	80-119	
Isopropylbenzene	10.0	1.0 U	8.87	89	68-116	
Methyl acetate	10.0	10 U	9.25 J	92	47-130	
Methyl tert-butyl ether	10.0	1.0 U	8.75	88	46-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6708.D

Lab ID: 240-27035-7 MS Client ID: GW-7097-071813-SK-007 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	1.0 U	10.2	102	70-152	
1,2,4-Trichlorobenzene	10.0	1.0 U	5.11	51	38-138	
1,2-Dichlorobenzene	10.0	1.0 U	8.09	81	75-111	
1,3-Dichlorobenzene	10.0	1.0 U	8.20	82	73-110	
1,4-Dichlorobenzene	10.0	1.0 U	8.00	80	75-110	
Trichlorofluoromethane	10.0	1.0 U	10.3	103	46-157	
Dibromochloromethane	10.0	1.0 U	9.31	93	56-118	
Methylcyclohexane	10.0	1.0 U	8.35	83	49-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6709.D

Lab ID: 240-27035-7 MSD Client ID: GW-7097-071813-SK-007 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acetone	20.0	15.9	79	10	30	33-145	
Benzene	10.0	9.89	99	0	30	72-121	
Bromodichloromethane	10.0	10.3	103	3	30	67-120	
Bromoform	10.0	8.98	90	3	30	32-128	
Bromomethane	10.0	11.0	110	3	30	10-186	
2-Butanone (MEK)	20.0	17.3	87	3	30	54-129	
Carbon disulfide	10.0	10.4	104	1	30	57-147	
Carbon tetrachloride	10.0	10.0	100	0	30	59-129	
Chlorobenzene	10.0	9.07	91	2	30	80-110	
Chloroethane	10.0	12.8	128	3	30	21-165	
Chloroform	10.0	10.1	101	0	30	76-118	
Chloromethane	10.0	8.30	83	8	30	33-132	
1,1-Dichloroethane	10.0	10.1	101	2	30	79-116	
1,2-Dichloroethane	10.0	10.1	101	1	30	68-129	
1,1-Dichloroethene	10.0	9.60	96	4	30	74-135	
1,2-Dichloropropane	10.0	9.77	98	1	30	78-115	
1,2,4-Trimethylbenzene	10.0	8.83	88	6	30	67-124	
cis-1,3-Dichloropropene	10.0	8.60	86	1	30	51-110	
trans-1,3-Dichloropropene	10.0	7.30	73	0	30	46-116	
Ethylbenzene	10.0	9.15	91	4	30	75-116	
2-Hexanone	20.0	16.4	82	6	30	47-139	
Methylene Chloride	10.0	8.47	85	1	30	63-128	
4-Methyl-2-pentanone (MIBK)	20.0	18.8	94	2	30	56-131	
Styrene	10.0	9.80	98	2	30	71-117	
1,1,2,2-Tetrachloroethane	10.0	7.53	75	2	30	63-122	
Tetrachloroethene	10.0	8.99	90	2	30	70-117	
Toluene	10.0	9.00	90	2	30	78-114	
Trichloroethene	10.0	10.3	103	3	30	66-120	
1,3,5-Trimethylbenzene	10.0	8.75	88	8	30	63-121	
Vinyl chloride	10.0	9.60	96	2	30	49-130	
Xylenes, Total	30.0	28.4	95	1	30	76-116	
1,1,1-Trichloroethane	10.0	10.0	100	1	30	68-121	
1,1,2-Trichloroethane	10.0	8.86	89	6	30	75-115	
Cyclohexane	10.0	8.67	87	2	30	49-123	
1,2-Dibromo-3-Chloropropane	10.0	6.45	64	5	30	32-139	
1,2-Dibromoethane	10.0	8.94	89	2	30	74-113	
Dichlorodifluoromethane	10.0	8.02	80	7	30	17-128	
cis-1,2-Dichloroethene	10.0	9.81	98	3	30	70-120	
trans-1,2-Dichloroethene	10.0	9.60	96	1	30	80-119	
Isopropylbenzene	10.0	9.30	93	5	30	68-116	
Methyl acetate	10.0	8.98 J	90	3	30	47-130	
Methyl tert-butyl ether	10.0	8.78	88	0	30	46-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR6709.D

Lab ID: 240-27035-7 MSD Client ID: GW-7097-071813-SK-007 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.93	99	2	30	70-152	
1,2,4-Trichlorobenzene	10.0	5.83	58	13	30	38-138	
1,2-Dichlorobenzene	10.0	8.21	82	1	30	75-111	
1,3-Dichlorobenzene	10.0	8.44	84	3	30	73-110	
1,4-Dichlorobenzene	10.0	8.18	82	2	30	75-110	
Trichlorofluoromethane	10.0	9.60	96	7	30	46-157	
Dibromochloromethane	10.0	8.85	88	5	30	56-118	
Methylcyclohexane	10.0	8.41	84	1	30	49-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab File ID: UXR6660.D Lab Sample ID: MB 240-95231/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX17 Date Analyzed: 07/27/2013 14:39

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-95231/4	UXR6658.D	07/27/2013 13:54
GW-7097-071813-SK-001	240-27035-1	UXR6672.D	07/27/2013 19:26
GW-7097-071813-SK-002	240-27035-2	UXR6673.D	07/27/2013 19:48
GW-7097-071813-SK-003	240-27035-3	UXR6674.D	07/27/2013 20:10
GW-7097-071813-SK-004	240-27035-4	UXR6675.D	07/27/2013 20:32
GW-7097-071813-SK-005	240-27035-5	UXR6676.D	07/27/2013 20:54
GW-7097-071813-SK-008	240-27035-8	UXR6678.D	07/27/2013 21:38
TB-7097-071813-SK	240-27035-9	UXR6679.D	07/27/2013 22:00

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab File ID: UXR6687.D Lab Sample ID: MB 240-95368/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX17 Date Analyzed: 07/29/2013 16:43

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-95368/4	UXR6685.D	07/29/2013 15:59
GW-7097-071813-SK-006	240-27035-6	UXR6689.D	07/29/2013 17:27
GW-7097-071813-SK-007	240-27035-7	UXR6707.D	07/30/2013 00:01
GW-7097-071813-SK-007 MS	240-27035-7 MS	UXR6708.D	07/30/2013 00:24
GW-7097-071813-SK-007 MSD	240-27035-7 MSD	UXR6709.D	07/30/2013 00:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab File ID: BFB353.D BFB Injection Date: 07/02/2013

Instrument ID: A3UX17 BFB Injection Time: 09:20

Analysis Batch No.: 92260

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	90.4	
175	5.0 - 9.0 % of mass 174	6.3	(7.0)1
176	95.0 - 101.0 % of mass 174	89.1	(98.6)1
177	5.0 - 9.0 % of mass 176	5.3	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-92260/2	UXR6124.D	07/02/2013	09:46
	STD8260 240-92260/3	UXR6125.D	07/02/2013	10:08
	STD8260 240-92260/4	UXR6126.D	07/02/2013	10:31
	STD8260 240-92260/5	UXR6127.D	07/02/2013	10:53
	STD8260 240-92260/6	UXR6128.D	07/02/2013	11:15
	STD8260 240-92260/7	UXR6129.D	07/02/2013	11:37
	ICV 240-92260/8	UXR6130.D	07/02/2013	12:00

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab File ID: BFB395.D BFB Injection Date: 07/27/2013

Instrument ID: A3UX17 BFB Injection Time: 12:36

Analysis Batch No.: 95231

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.1	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.6)1
174	50.0 - 120.00 % of mass 95	95.7	
175	5.0 - 9.0 % of mass 174	7.0	(7.3)1
176	95.0 - 101.0 % of mass 174	95.8	(100.2)1
177	5.0 - 9.0 % of mass 176	6.0	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-95231/2	UXR6656.D	07/27/2013	13:10
	CCV 240-95231/3	UXR6657.D	07/27/2013	13:32
	LCS 240-95231/4	UXR6658.D	07/27/2013	13:54
	MB 240-95231/6	UXR6660.D	07/27/2013	14:39
GW-7097-071813-SK-001	240-27035-1	UXR6672.D	07/27/2013	19:26
GW-7097-071813-SK-002	240-27035-2	UXR6673.D	07/27/2013	19:48
GW-7097-071813-SK-003	240-27035-3	UXR6674.D	07/27/2013	20:10
GW-7097-071813-SK-004	240-27035-4	UXR6675.D	07/27/2013	20:32
GW-7097-071813-SK-005	240-27035-5	UXR6676.D	07/27/2013	20:54
GW-7097-071813-SK-008	240-27035-8	UXR6678.D	07/27/2013	21:38
TB-7097-071813-SK	240-27035-9	UXR6679.D	07/27/2013	22:00

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab File ID: BFB398.D BFB Injection Date: 07/29/2013

Instrument ID: A3UX17 BFB Injection Time: 14:48

Analysis Batch No.: 95368

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 60.0 % of mass 95	45.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.7	(0.8)1
174	50.0 - 120.00 % of mass 95	96.9	
175	5.0 - 9.0 % of mass 174	7.0	(7.2)1
176	95.0 - 101.0 % of mass 174	97.4	(100.5)1
177	5.0 - 9.0 % of mass 176	5.6	(5.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-95368/2	UXR6683.D	07/29/2013	15:15
	CCV 240-95368/3	UXR6684.D	07/29/2013	15:37
	LCS 240-95368/4	UXR6685.D	07/29/2013	15:59
	MB 240-95368/6	UXR6687.D	07/29/2013	16:43
GW-7097-071813-SK-006	240-27035-6	UXR6689.D	07/29/2013	17:27
GW-7097-071813-SK-007	240-27035-7	UXR6707.D	07/30/2013	00:01
GW-7097-071813-SK-007 MS	240-27035-7 MS	UXR6708.D	07/30/2013	00:24
GW-7097-071813-SK-007 MSD	240-27035-7 MSD	UXR6709.D	07/30/2013	00:45

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Sample No.: STD8260 240-92260/4 Date Analyzed: 07/02/2013 10:31

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR6126.D Heated Purge: (Y/N) N

Calibration ID: 16141

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1341606	5.76	1090840	8.48	658450	10.72
UPPER LIMIT		2683212	6.26	2181680	8.98	1316900	11.22
LOWER LIMIT		670803	5.26	545420	7.98	329225	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-92260/8		1263222	5.76	971310	8.48	471339	10.72
CCVIS 240-95231/2		1309434	5.76	1156848	8.48	707519	10.72
CCVIS 240-95368/2		1215179	5.76	1059979	8.48	657107	10.72

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Sample No.: CCVIS 240-95231/2 Date Analyzed: 07/27/2013 13:10

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR6656.D Heated Purge: (Y/N) N

Calibration ID: 16141

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1309434	5.76	1156848	8.48	707519	10.72
UPPER LIMIT		2618868	6.26	2313696	8.98	1415038	11.22
LOWER LIMIT		654717	5.26	578424	7.98	353760	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-95231/3		1374175	5.76	1144025	8.48	602151	10.72
LCS 240-95231/4		1363524	5.76	1167598	8.48	708436	10.72
MB 240-95231/6		1221170	5.76	1122551	8.48	541149	10.72
240-27035-1	GW-7097-071813-SK-001	1102191	5.76	961911	8.48	503620	10.72
240-27035-2	GW-7097-071813-SK-002	1089177	5.76	976902	8.48	514882	10.72
240-27035-3	GW-7097-071813-SK-003	1046947	5.76	916804	8.48	479830	10.72
240-27035-4	GW-7097-071813-SK-004	1075151	5.78	950252	8.48	483802	10.72
240-27035-5	GW-7097-071813-SK-005	1082159	5.78	931502	8.48	519881	10.72
240-27035-8	GW-7097-071813-SK-008	1060575	5.76	945292	8.48	495696	10.72
240-27035-9	TB-7097-071813-SK	1021877	5.76	933590	8.48	474840	10.72

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Sample No.: CCVIS 240-95368/2 Date Analyzed: 07/29/2013 15:15

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR6683.D Heated Purge: (Y/N) N

Calibration ID: 16141

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1215179	5.76	1059979	8.48	657107	10.72
UPPER LIMIT		2430358	6.26	2119958	8.98	1314214	11.22
LOWER LIMIT		607590	5.26	529990	7.98	328554	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-95368/3		1279853	5.76	1050550	8.48	557330	10.72
LCS 240-95368/4		1241281	5.76	1070581	8.48	652602	10.72
MB 240-95368/6		1121328	5.76	1001090	8.48	523904	10.72
240-27035-6	GW-7097-071813-SK-006	1061685	5.76	877351	8.48	345781	10.72
240-27035-7	GW-7097-071813-SK-007	1006315	5.76	922438	8.48	466522	10.72
240-27035-7 MS	GW-7097-071813-SK-007 MS	1044257	5.76	927979	8.48	640388	10.72
240-27035-7 MSD	GW-7097-071813-SK-007 MSD	1131905	5.76	1014025	8.48	658147	10.72

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-001 | Lab Sample ID: 240-27035-1

Matrix: Water | Lab File ID: UXR6672.D

Analysis Method: 8260B | Date Collected: 07/18/2013 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 19:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	1.1	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-001 | Lab Sample ID: 240-27035-1

Matrix: Water | Lab File ID: UXR6672.D

Analysis Method: 8260B | Date Collected: 07/18/2013 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 19:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	78		66-117
2037-26-5	Toluene-d8 (Surr)	80		74-115
1868-53-7	Dibromofluoromethane (Surr)	101		75-121

Report Date: 29-Jul-2013 10:58:58 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6672.D		
Lims ID:	240-27035-B-1	Client ID:	GW-7097-071813-SK-001
Inject. Date:	27-Jul-2013 19:26:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0021993-018		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	17
Lims Batch ID:	95231	Lims Sample ID:	18
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:51	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		

First Level Reviewer: williamsla Date: 29-Jul-2013 10:53:04

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1102191	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	85	961911	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	94	503620	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	61	254405	9.00	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	318164	8.32	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	926440	7.14	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	95	337311	6.94	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					
17 Vinyl chloride	62	1.957	1.945	0.012	20	6833	0.1657	
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.237	3.237	0.0	77	20170	1.11	
29 Carbon disulfide	76		3.392					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
45 cis-1,2-Dichloroethene	96		4.779					
46 2-Butanone (MEK)	43		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78		5.538					9
59 1,2-Dichloroethane	62		5.550					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					9
91 o-Xylene	106		9.084					9
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					9
106 1,2,4-Trimethylbenzene	105		10.364					9
108 1,3-Dichlorobenzene	146		10.661					9
110 1,4-Dichlorobenzene	146		10.744					9
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

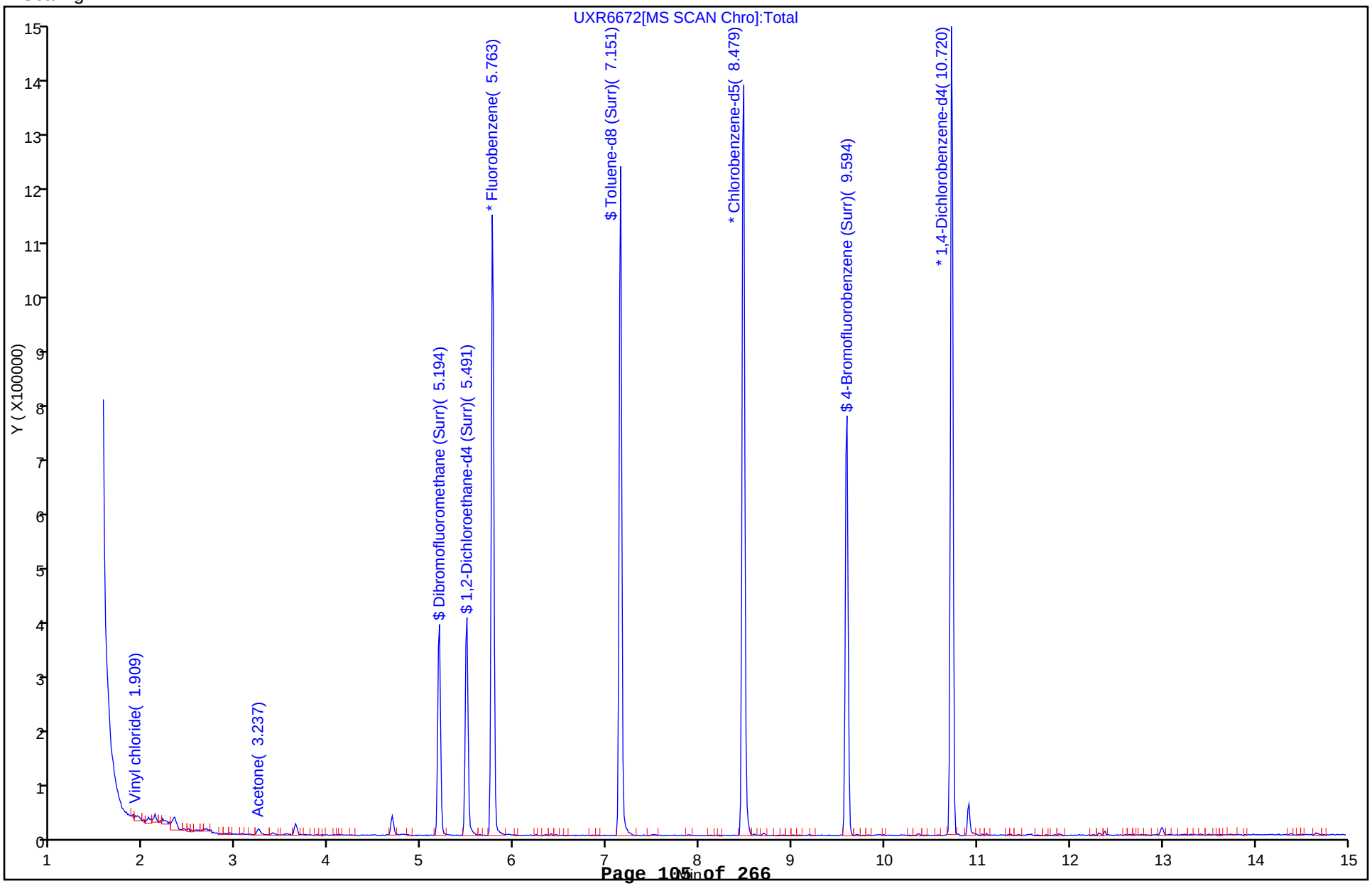
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:58:58 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6672.D		
Injection Date:	27-Jul-2013 19:26:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-001	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	18
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:

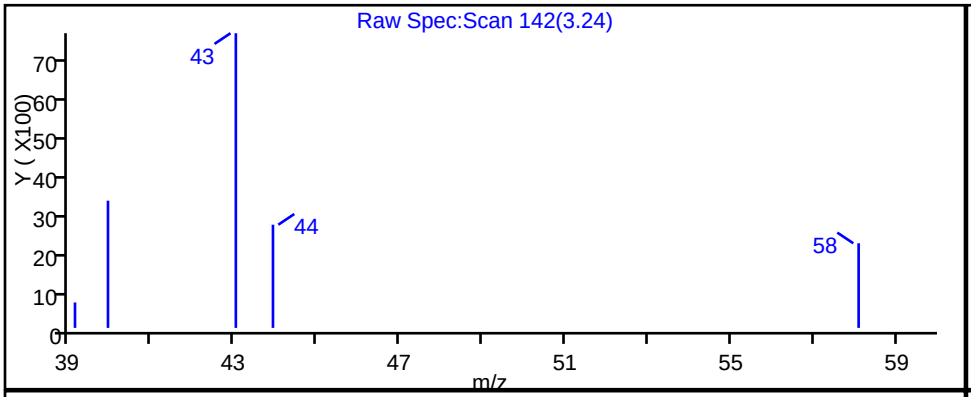


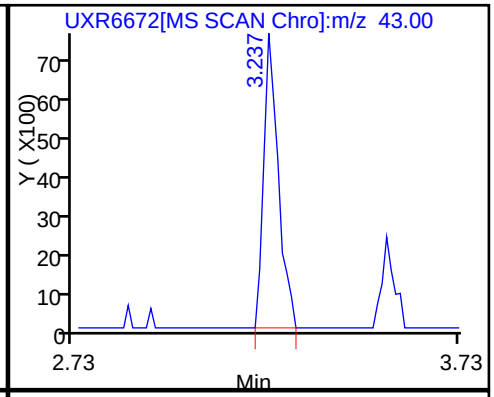
Report Date: 29-Jul-2013 10:58:58 Chrom Revision: 2.0 01-Apr-2013 21:16:10

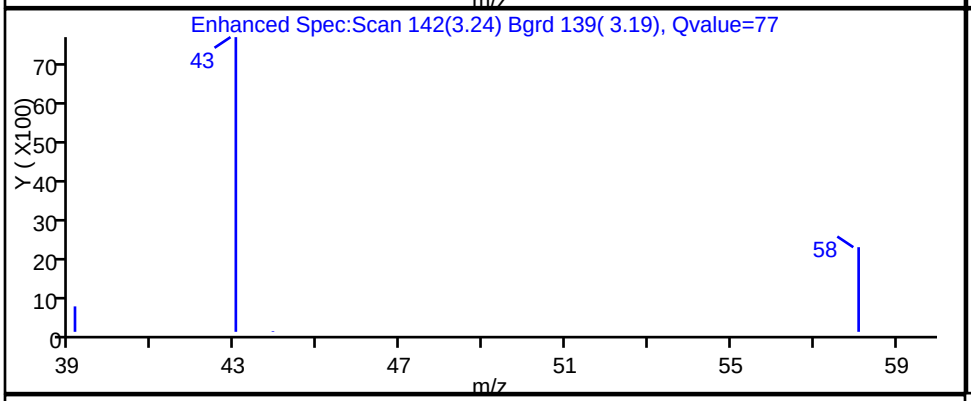
TestAmerica Canton

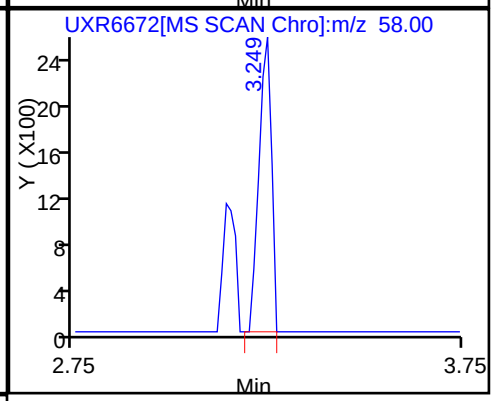
Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6672.D		
Injection Date:	27-Jul-2013 19:26:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-001	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	18
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

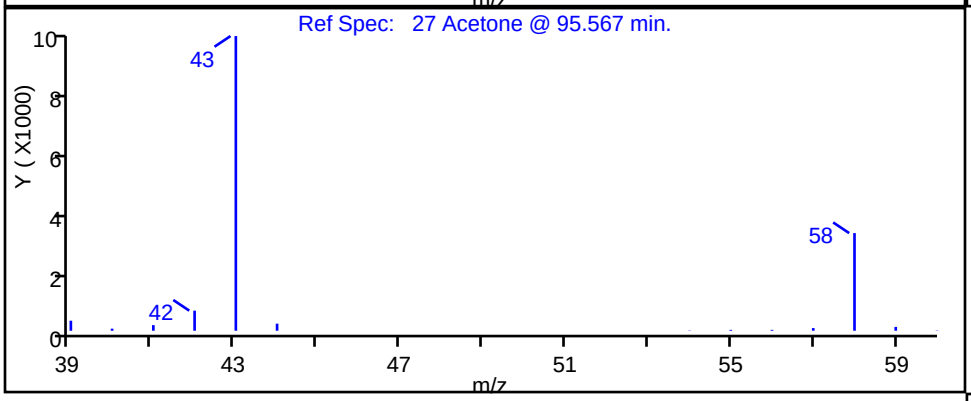
27 Acetone

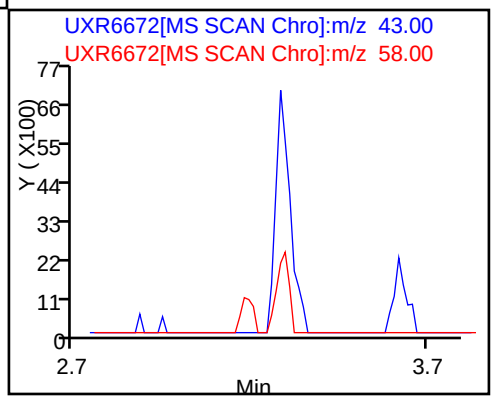












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-002 | Lab Sample ID: 240-27035-2

Matrix: Water | Lab File ID: UXR6673.D

Analysis Method: 8260B | Date Collected: 07/18/2013 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 19:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-002 | Lab Sample ID: 240-27035-2

Matrix: Water | Lab File ID: UXR6673.D

Analysis Method: 8260B | Date Collected: 07/18/2013 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 19:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	74		66-117
2037-26-5	Toluene-d8 (Surr)	77		74-115
1868-53-7	Dibromofluoromethane (Surr)	99		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6673.D		
Lims ID:	240-27035-B-2	Client ID:	GW-7097-071813-SK-002
Inject. Date:	27-Jul-2013 19:48:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0021993-019		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	18
Lims Batch ID:	95231	Lims Sample ID:	19
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:51	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		

First Level Reviewer: williamsla Date: 29-Jul-2013 10:53:58

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1089177	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	976902	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	94	514882	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	247315	8.86	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	314016	8.31	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	903141	6.86	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	97	325381	6.59	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					9
17 Vinyl chloride	62	1.945	1.945	0.0	19	6760	0.1659	
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.237	3.237	0.0	78	17712	0.8872	
29 Carbon disulfide	76		3.392					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
45 cis-1,2-Dichloroethene	96		4.779					
46 2-Butanone (MEK)	43		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78		5.538					9
59 1,2-Dichloroethane	62		5.550					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					9
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					9
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

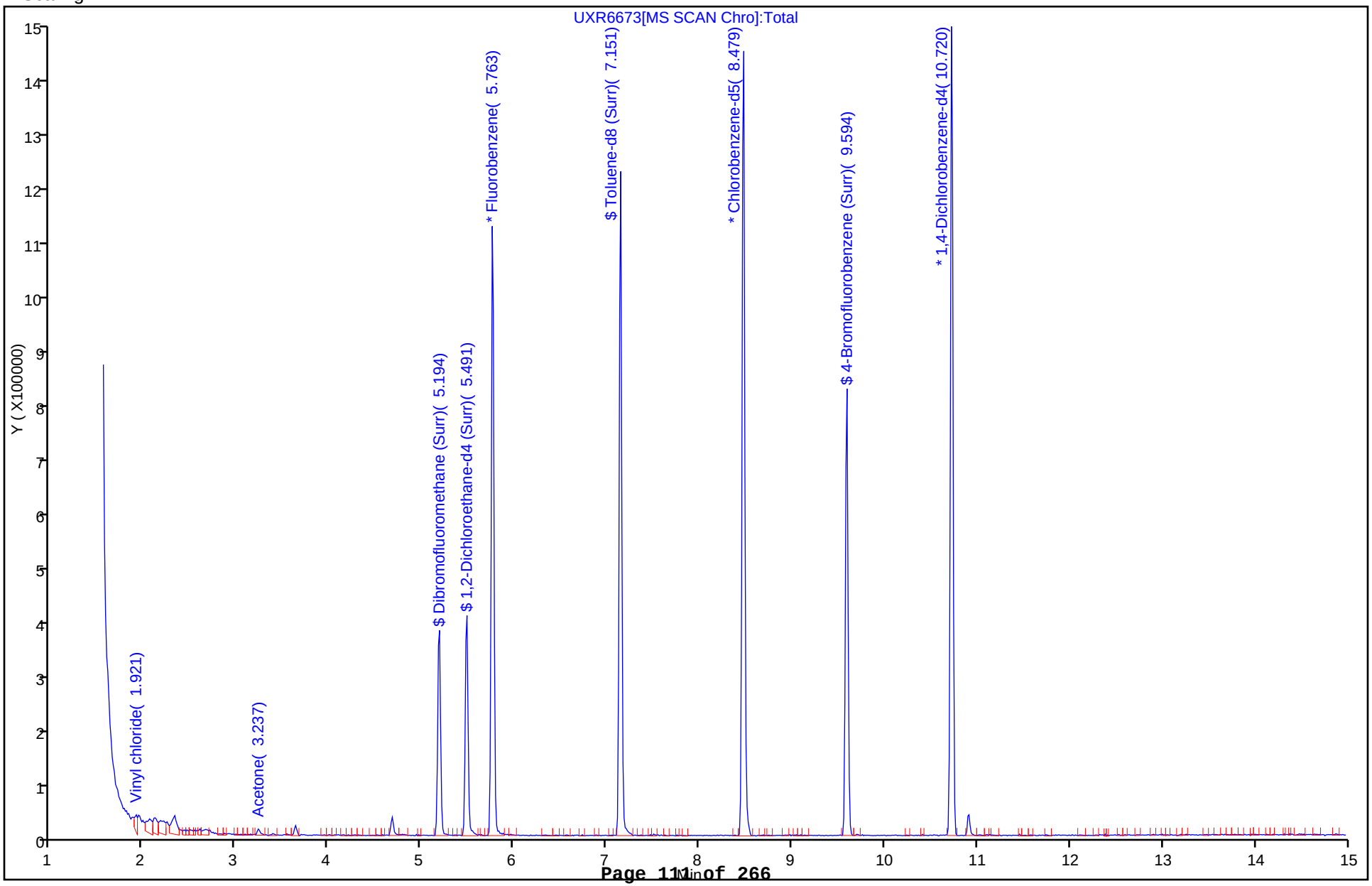
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:58:58 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6673.D		
Injection Date:	27-Jul-2013 19:48:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-002	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	19
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-003 | Lab Sample ID: 240-27035-3

Matrix: Water | Lab File ID: UXR6674.D

Analysis Method: 8260B | Date Collected: 07/18/2013 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 20:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-003 | Lab Sample ID: 240-27035-3

Matrix: Water | Lab File ID: UXR6674.D

Analysis Method: 8260B | Date Collected: 07/18/2013 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 20:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129
460-00-4	4-Bromofluorobenzene (Surr)	78		66-117
2037-26-5	Toluene-d8 (Surr)	78		74-115
1868-53-7	Dibromofluoromethane (Surr)	102		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6674.D		
Lims ID:	240-27035-B-3	Client ID:	GW-7097-071813-SK-003
Inject. Date:	27-Jul-2013 20:10:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0021993-020		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	19
Lims Batch ID:	95231	Lims Sample ID:	20
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:51	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1046947	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	916804	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	479830	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	244799	9.12	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	317992	8.75	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	864690	6.99	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	323804	6.99	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43		3.237					
29 Carbon disulfide	76		3.392					9
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
45 cis-1,2-Dichloroethene	96		4.779					
46 2-Butanone (MEK)	43		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78		5.538					9
59 1,2-Dichloroethane	62		5.550					
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

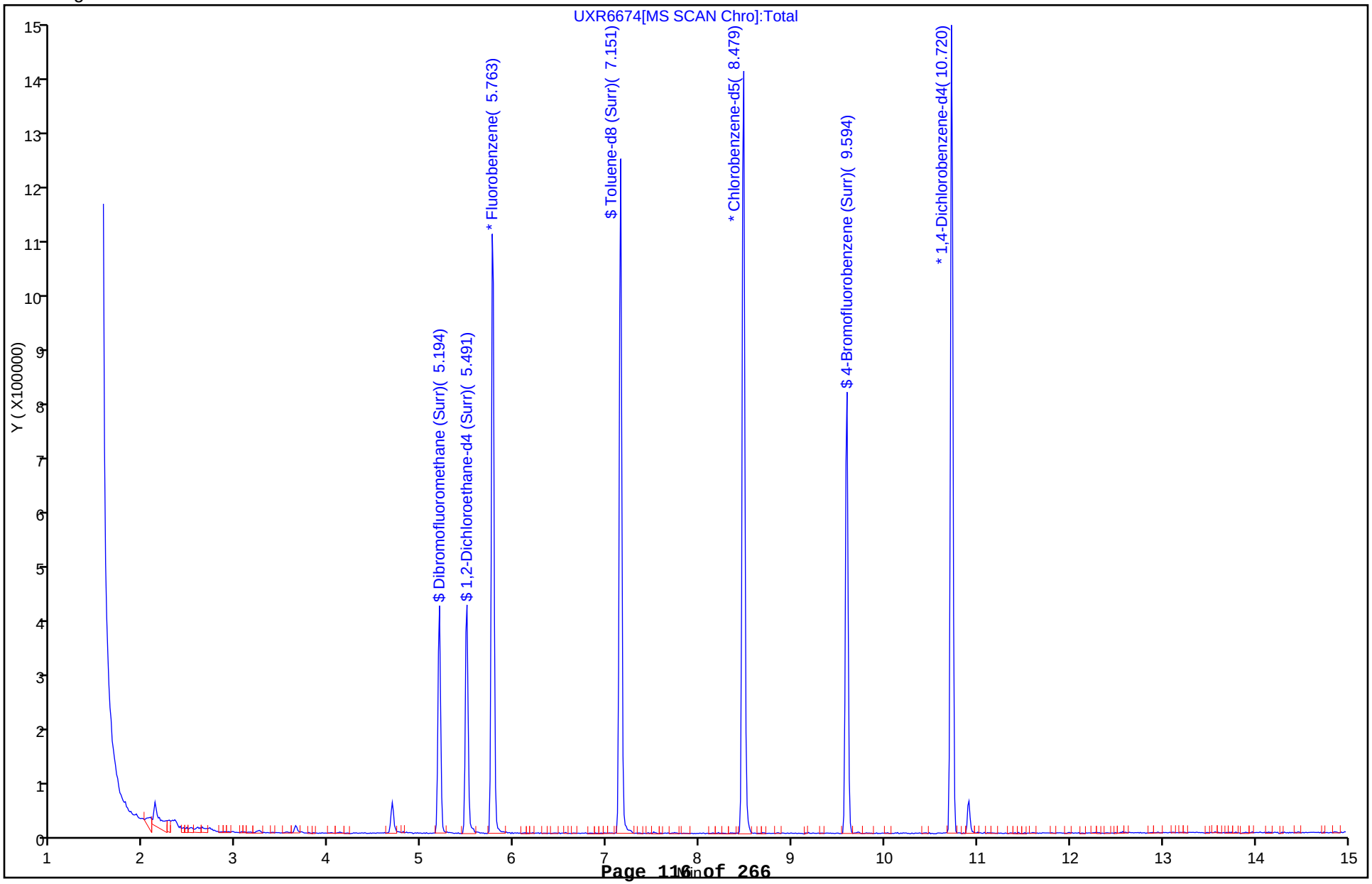
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6674.D		
Injection Date:	27-Jul-2013 20:10:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-003	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	20
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-004 | Lab Sample ID: 240-27035-4

Matrix: Water | Lab File ID: UXR6675.D

Analysis Method: 8260B | Date Collected: 07/18/2013 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 20:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	0.21	J	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-004 | Lab Sample ID: 240-27035-4

Matrix: Water | Lab File ID: UXR6675.D

Analysis Method: 8260B | Date Collected: 07/18/2013 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 20:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.3		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-129
460-00-4	4-Bromofluorobenzene (Surr)	73		66-117
2037-26-5	Toluene-d8 (Surr)	76		74-115
1868-53-7	Dibromofluoromethane (Surr)	101		75-121

Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6675.D
Lims ID: 240-27035-B-4 Client ID: GW-7097-071813-SK-004
Inject. Date: 27-Jul-2013 20:32:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0021993-021
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 20
Lims Batch ID: 95231 Lims Sample ID: 21
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m
Last Update: 29-Jul-2013 10:58:51 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK027

First Level Reviewer: williamsla Date: 29-Jul-2013 10:54:32

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.775	5.763	0.012	99	1075151	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	950252	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	483802	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	248100	9.00	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	314404	8.43	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	865506	6.75	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	312123	6.50	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					9
17 Vinyl chloride	62		1.945					9
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.238	3.237	0.001	83	14890	0.6251	
29 Carbon disulfide	76		3.392					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					9
39 1,1-Dichloroethane	63		4.269					9
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	56	43275	1.32	
46 2-Butanone (MEK)	43		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78	5.538	5.538	0.0	74	26044	0.2069	
59 1,2-Dichloroethane	62		5.550					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					9
75 Toluene	91		7.210					
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

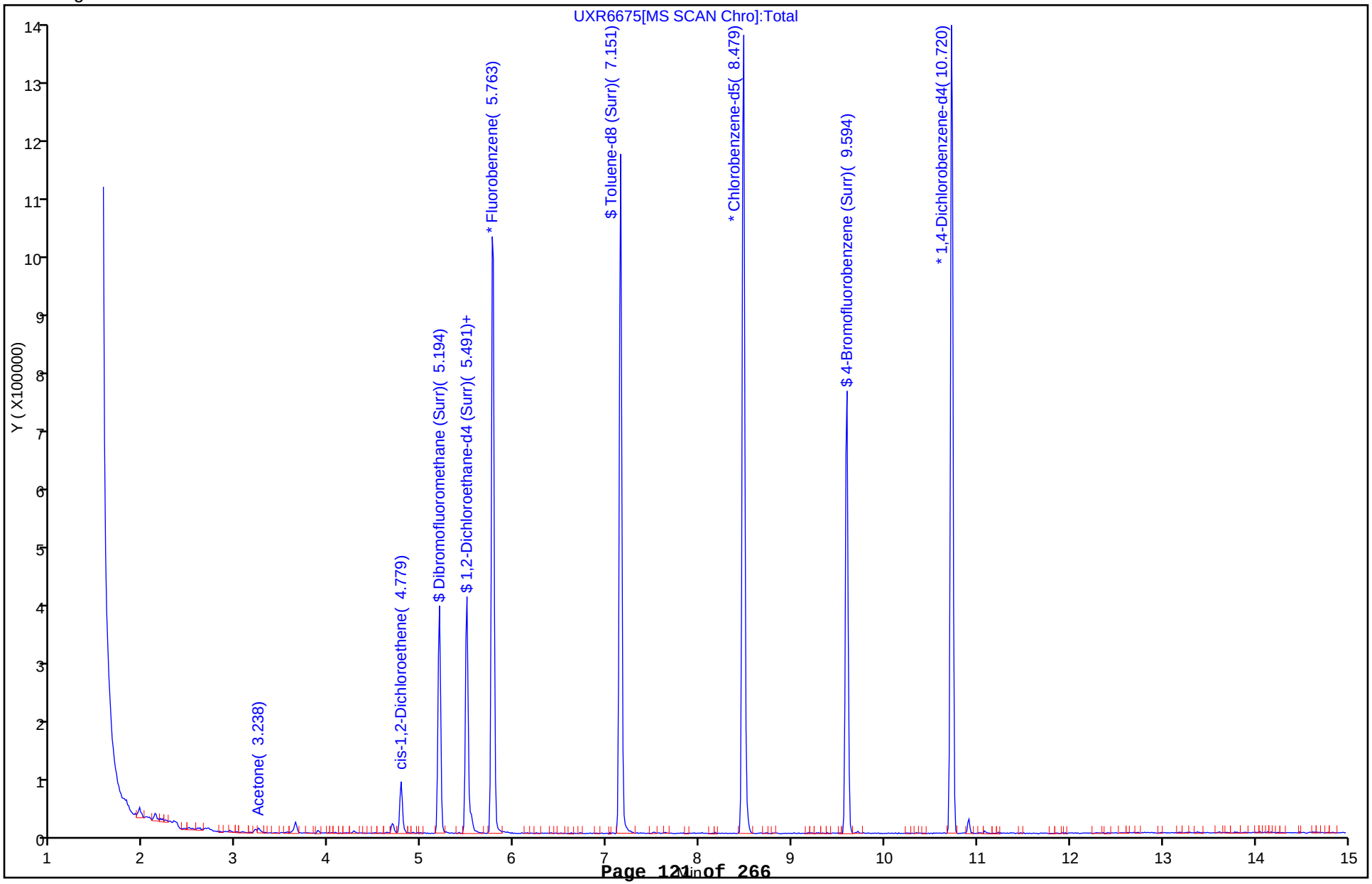
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6675.D		
Injection Date:	27-Jul-2013 20:32:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-004	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	21
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:

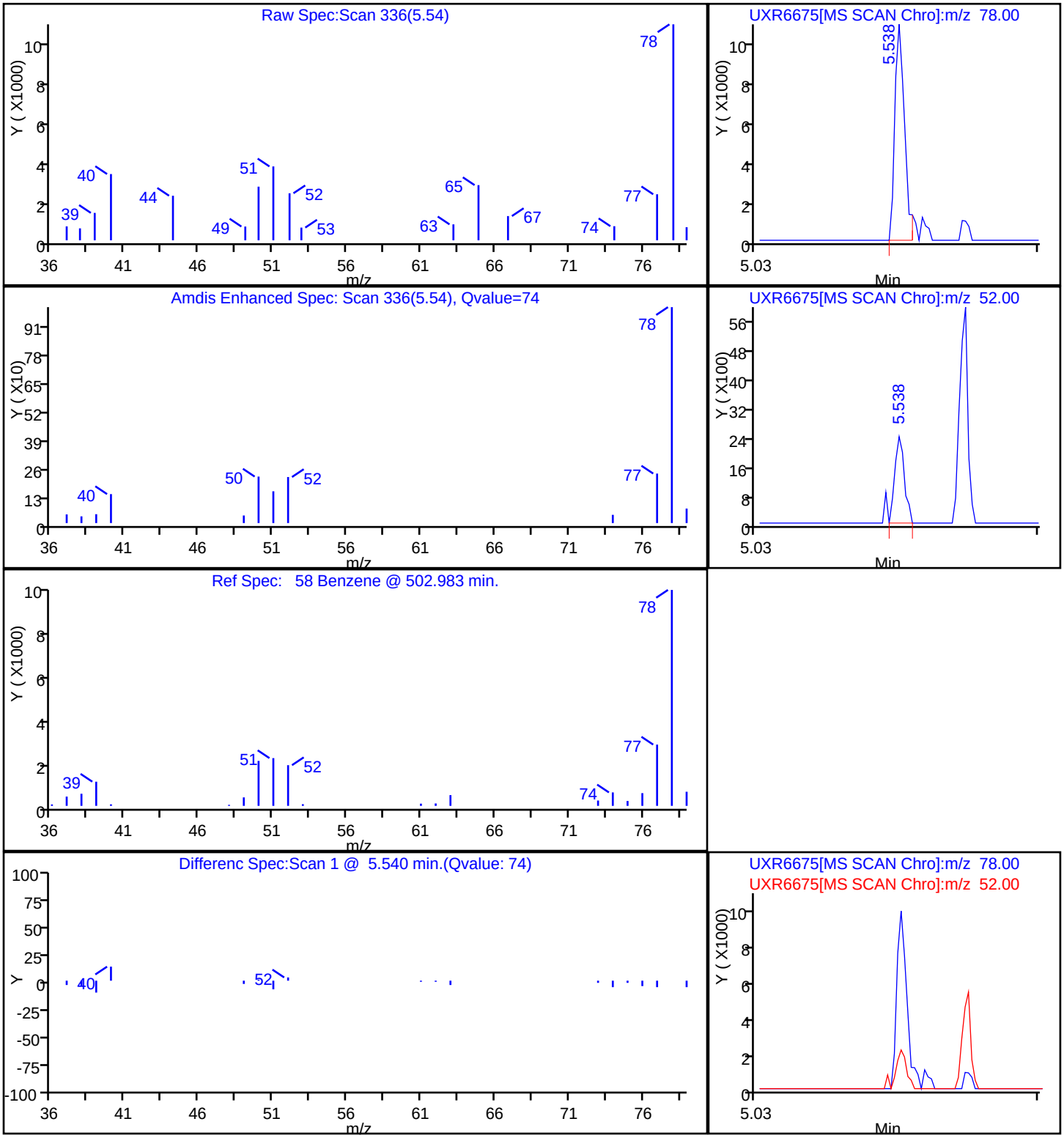


Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6675.D		
Injection Date:	27-Jul-2013 20:32:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-004	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	21
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

58 Benzene

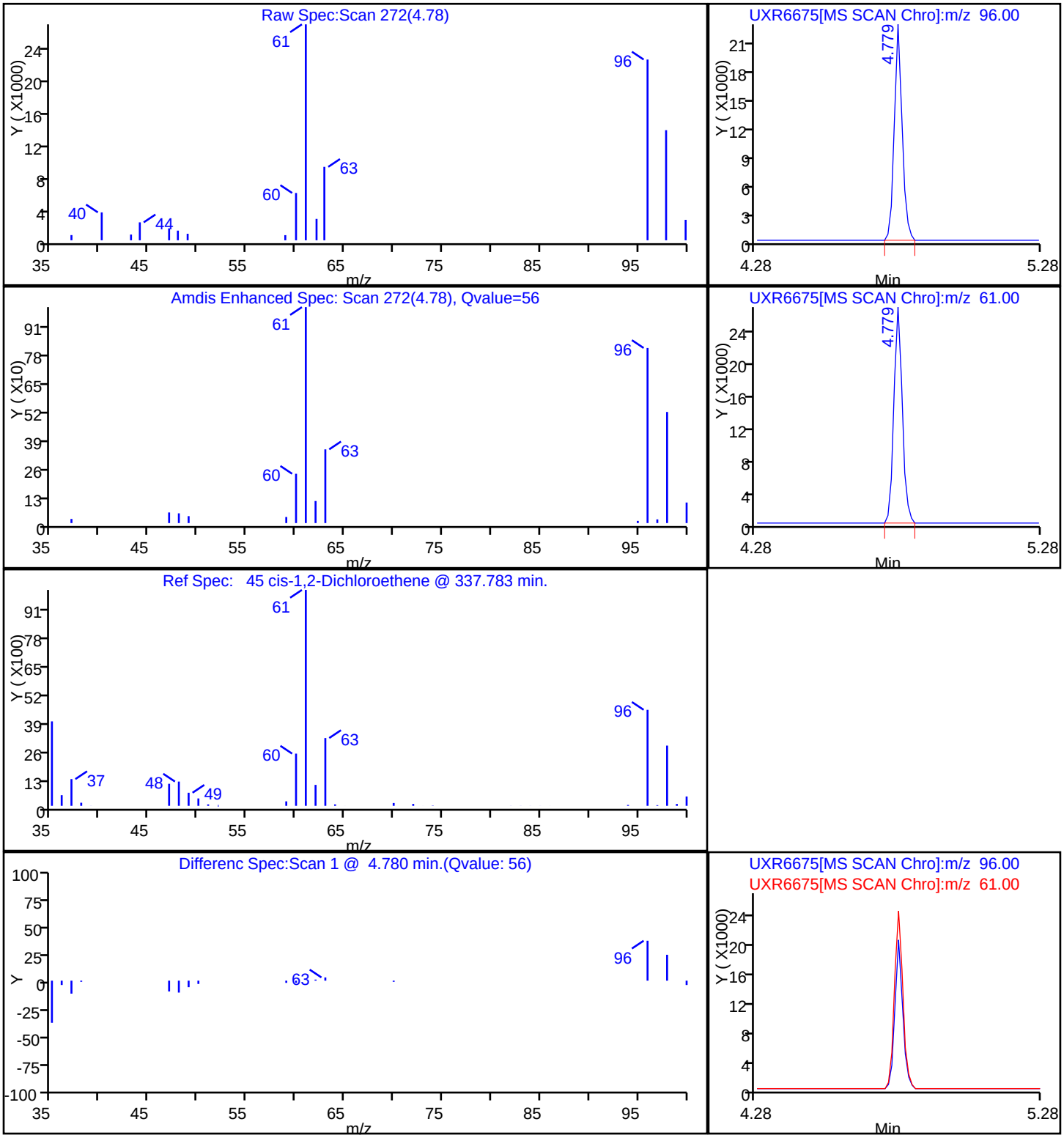


Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6675.D		
Injection Date:	27-Jul-2013 20:32:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-004	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	21
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

45 cis-1,2-Dichloroethene



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-005 | Lab Sample ID: 240-27035-5

Matrix: Water | Lab File ID: UXR6676.D

Analysis Method: 8260B | Date Collected: 07/18/2013 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 20:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	2.0	J	10	1.1
71-43-2	Benzene	0.13	J	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	0.66	J	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-005 | Lab Sample ID: 240-27035-5

Matrix: Water | Lab File ID: UXR6676.D

Analysis Method: 8260B | Date Collected: 07/18/2013 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 20:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	0.50	J	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	81		66-117
2037-26-5	Toluene-d8 (Surr)	77		74-115
1868-53-7	Dibromofluoromethane (Surr)	98		75-121

Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6676.D		
Lims ID:	240-27035-B-5	Client ID:	GW-7097-071813-SK-005
Inject. Date:	27-Jul-2013 20:54:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0021993-022		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	21
Lims Batch ID:	95231	Lims Sample ID:	22
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:51	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.775	5.763	0.012	99	1082159	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	931502	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	94	519881	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	241911	8.72	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	310566	8.27	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	858349	6.83	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	95	339755	7.22	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					
17 Vinyl chloride	62		1.945					9
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.237	3.237	0.0	82	28496	1.98	
29 Carbon disulfide	76		3.392					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
45 cis-1,2-Dichloroethene	96		4.779					9
46 2-Butanone (MEK)	43	4.791	4.779	0.012	69	6767	0.4752	
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56	5.265	5.253	0.012	74	41519	0.6585	
55 Carbon tetrachloride	117		5.348					
58 Benzene	78	5.538	5.538	0.0	51	16521	0.1304	
59 1,2-Dichloroethane	62		5.550					
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					9

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					9
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					9
90 m-Xylene & p-Xylene	106		8.692					9
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105	9.428	9.428	0.0	82	74194	0.5027	
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					9
106 1,2,4-Trimethylbenzene	105		10.364					
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

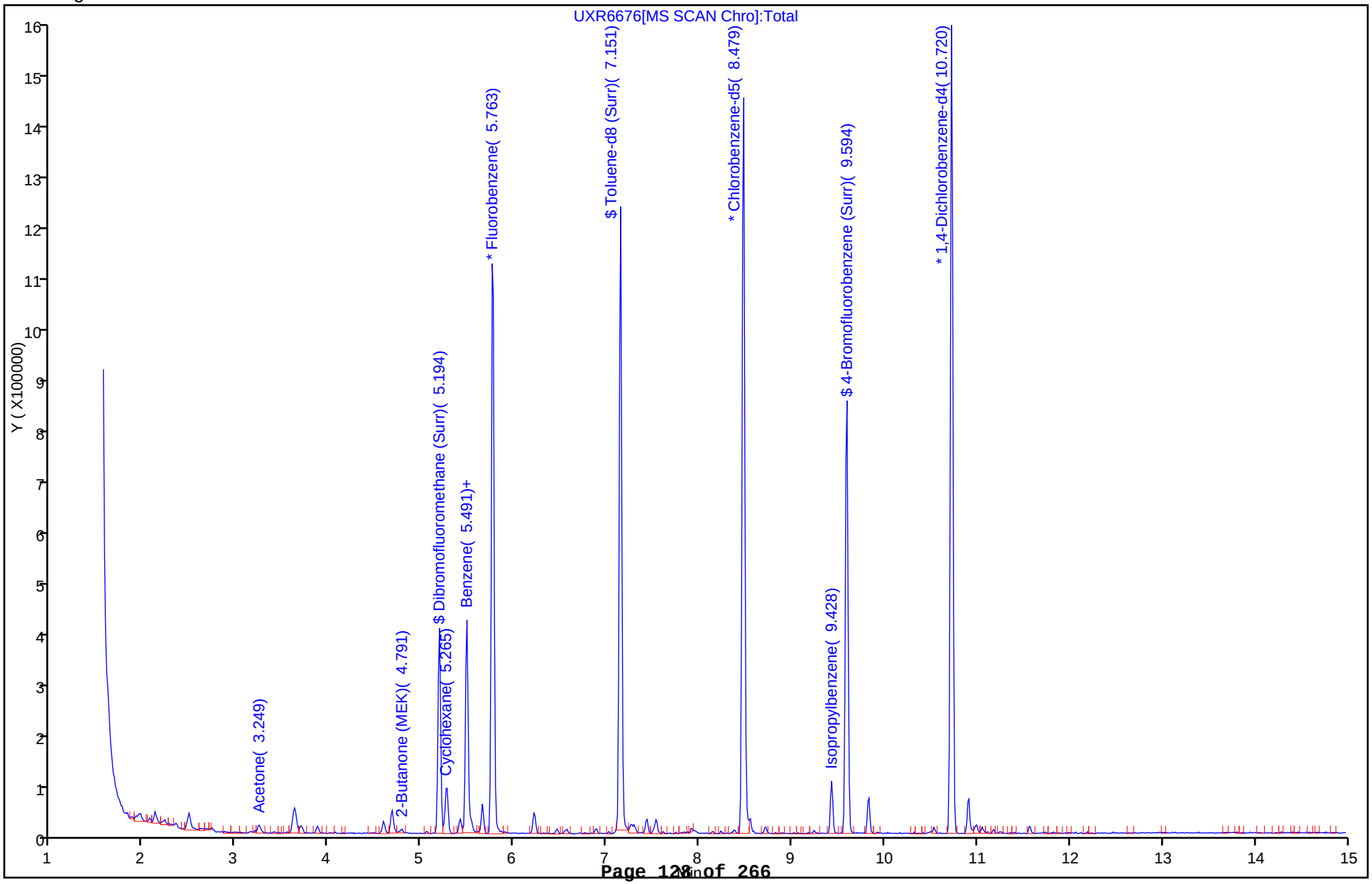
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6676.D		
Injection Date:	27-Jul-2013 20:54:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-005	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	22
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:

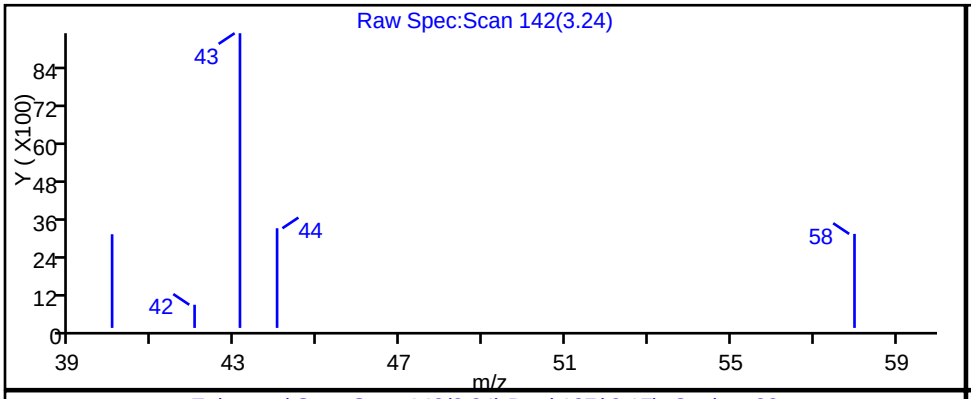


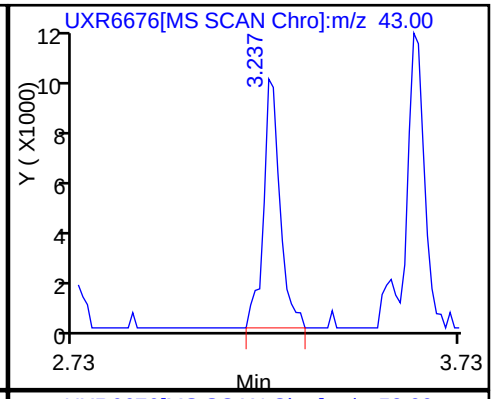
Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

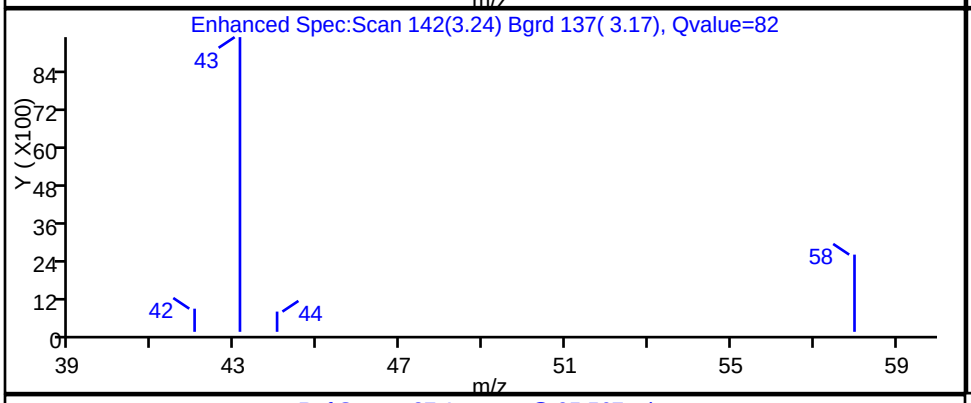
TestAmerica Canton

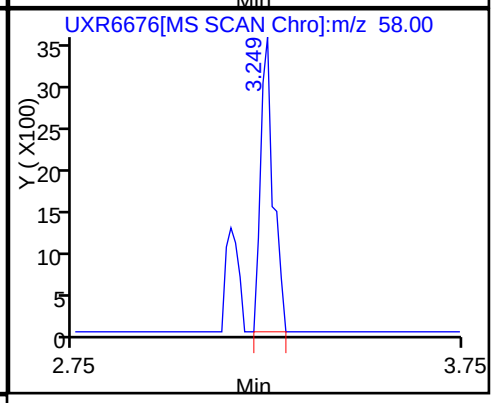
Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6676.D		
Injection Date:	27-Jul-2013 20:54:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-005	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	22
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

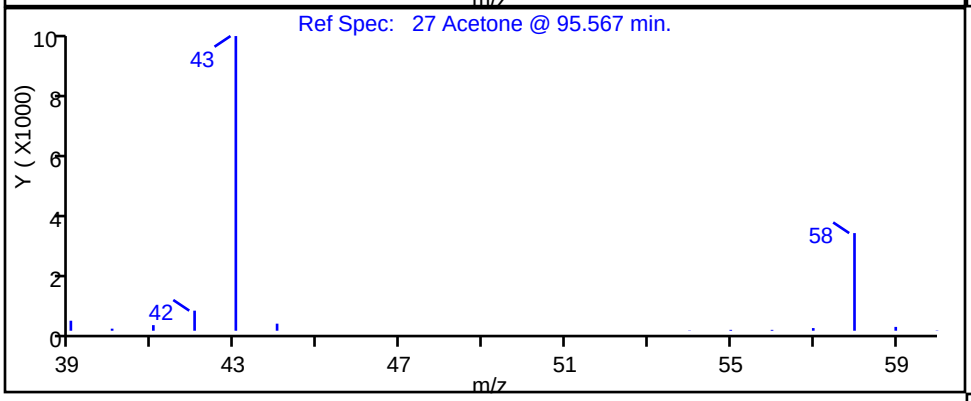
27 Acetone

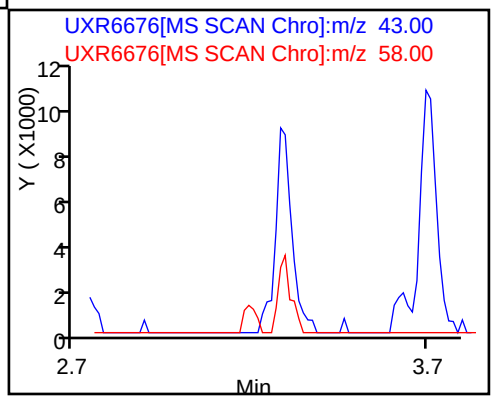










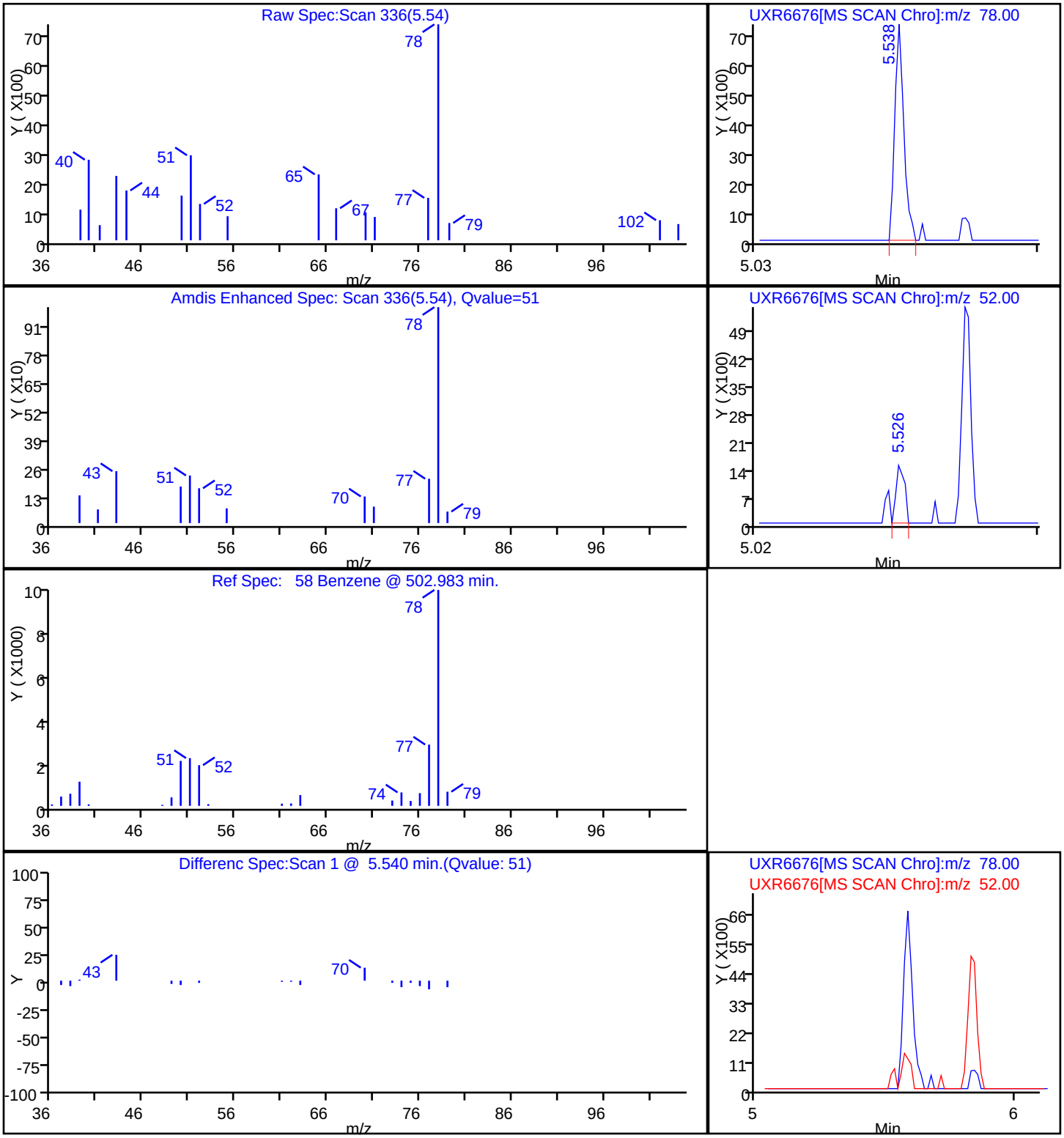


Report Date: 29-Jul-2013 10:59:00 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6676.D		
Injection Date:	27-Jul-2013 20:54:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-005	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	22
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

58 Benzene

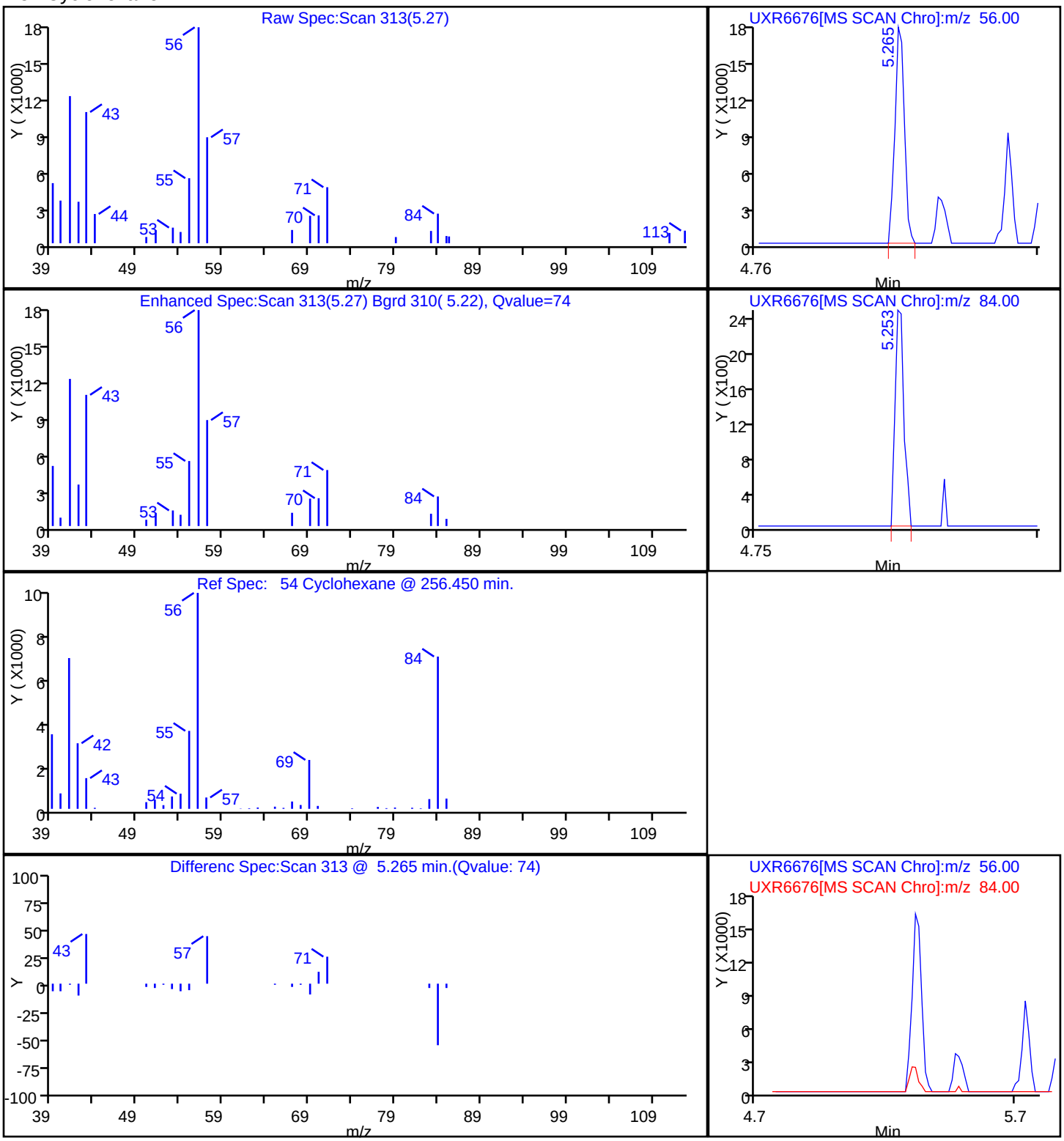


Report Date: 29-Jul-2013 10:58:59 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6676.D		
Injection Date:	27-Jul-2013 20:54:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-005	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	22
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

54 Cyclohexane

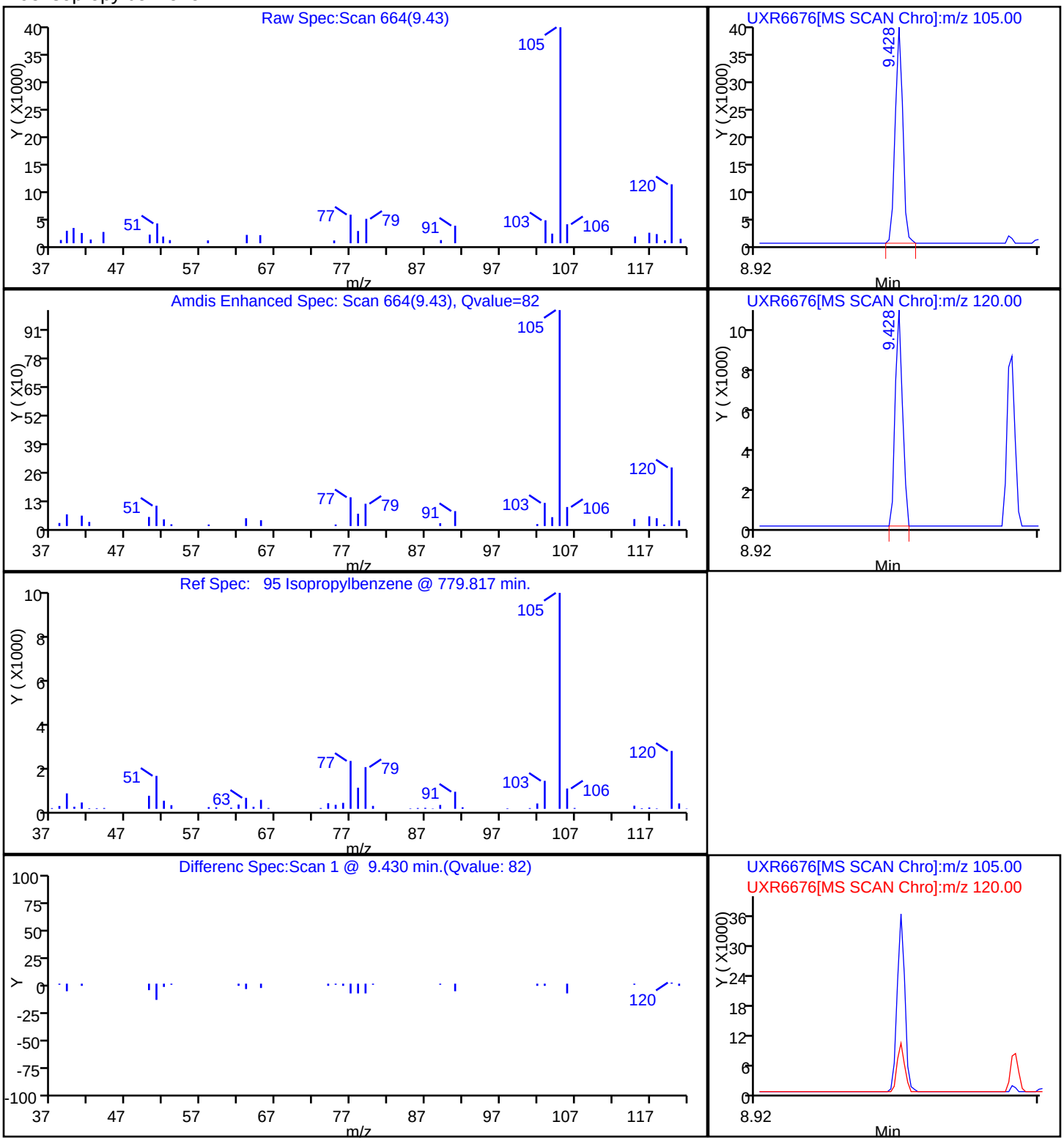


Report Date: 29-Jul-2013 10:59:00 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6676.D		
Injection Date:	27-Jul-2013 20:54:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-005	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	22
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

95 Isopropylbenzene



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-006 | Lab Sample ID: 240-27035-6

Matrix: Water | Lab File ID: UXR6689.D

Analysis Method: 8260B | Date Collected: 07/18/2013 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/29/2013 17:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-006 | Lab Sample ID: 240-27035-6

Matrix: Water | Lab File ID: UXR6689.D

Analysis Method: 8260B | Date Collected: 07/18/2013 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/29/2013 17:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129
460-00-4	4-Bromofluorobenzene (Surr)	70		66-117
2037-26-5	Toluene-d8 (Surr)	80		74-115
1868-53-7	Dibromofluoromethane (Surr)	97		75-121

Report Date: 30-Jul-2013 11:08:31 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6689.D
Lims ID: 240-27035-B-6 Client ID: GW-7097-071813-SK-006
Inject. Date: 29-Jul-2013 17:27:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0022028-008
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 7
Lims Batch ID: 95368 Lims Sample ID: 8
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m
Last Update: 30-Jul-2013 11:08:27 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK021

First Level Reviewer: williamsla Date: 30-Jul-2013 10:58:53

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1061685	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	85	877351	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	94	345781	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	236338	8.68	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.479	0.011	0	299512	8.13	
$ 8 Toluene-d8 (Surr)	98	7.151	7.139	0.012	93	843372	7.13	
$ 9 4-Bromofluorobenzene (Surr)	95	9.593	9.582	0.011	96	277882	6.27	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					9
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.313					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.249	3.237	0.012	70	13940	0.5470	
29 Carbon disulfide	76		3.392					9
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					9
46 2-Butanone (MEK)	43		4.779					
45 cis-1,2-Dichloroethene	96		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					9
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78		5.538					9
59 1,2-Dichloroethane	62		5.550					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
63 Trichloroethene	130		6.084					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					9
70 Dichlorobromomethane	83		6.510					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.933					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.285					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

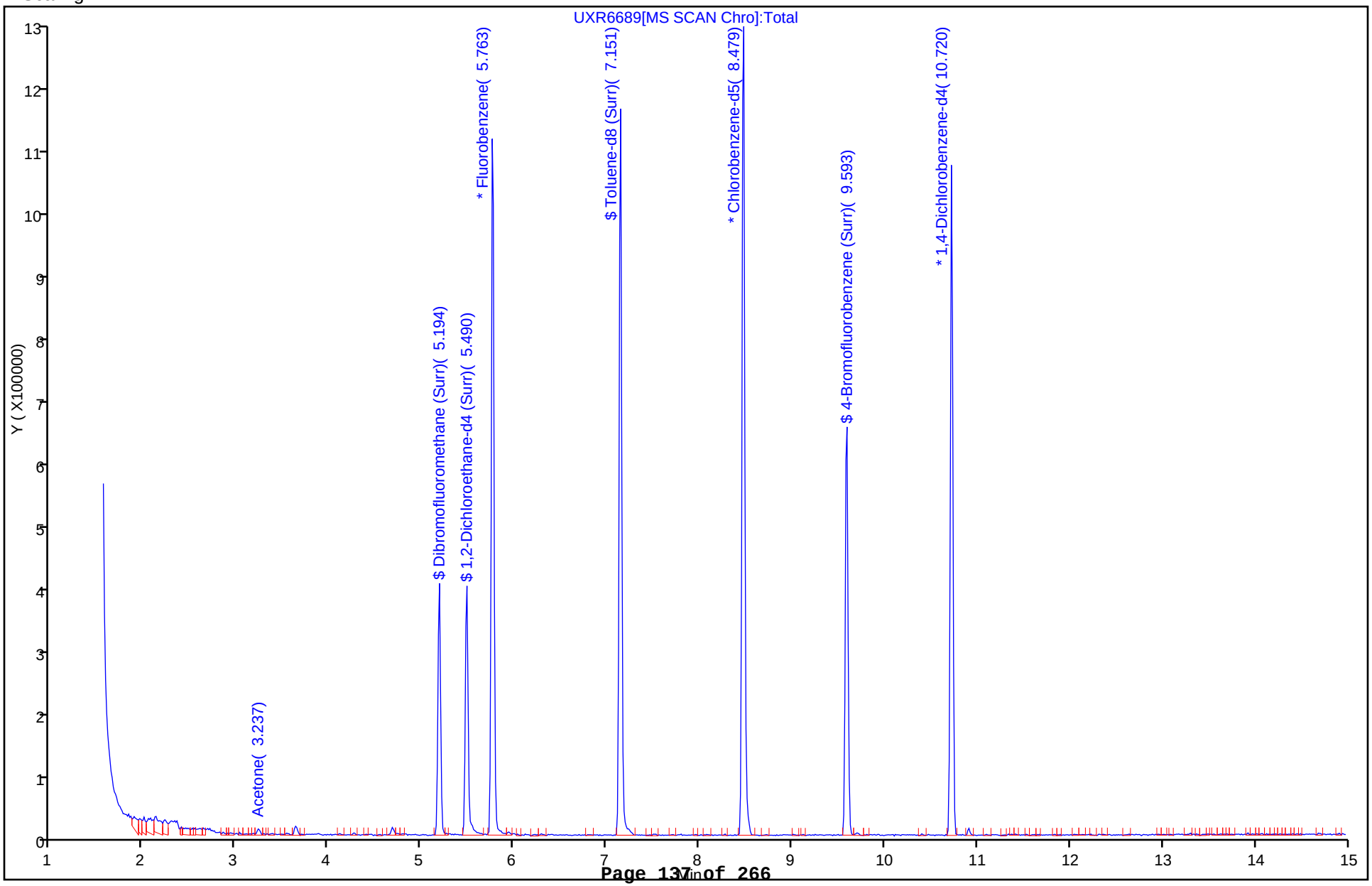
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 30-Jul-2013 11:08:31 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6689.D		
Injection Date:	29-Jul-2013 17:27:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-006	Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	8
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-007 | Lab Sample ID: 240-27035-7

Matrix: Water | Lab File ID: UXR6707.D

Analysis Method: 8260B | Date Collected: 07/18/2013 15:15

Sample wt/vol: 5(mL) | Date Analyzed: 07/30/2013 00:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	0.13	J	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-007 | Lab Sample ID: 240-27035-7

Matrix: Water | Lab File ID: UXR6707.D

Analysis Method: 8260B | Date Collected: 07/18/2013 15:15

Sample wt/vol: 5(mL) | Date Analyzed: 07/30/2013 00:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129
460-00-4	4-Bromofluorobenzene (Surr)	70		66-117
2037-26-5	Toluene-d8 (Surr)	75		74-115
1868-53-7	Dibromofluoromethane (Surr)	103		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6707.D		
Lims ID:	240-27035-D-7	Client ID:	GW-7097-071813-SK-007
Inject. Date:	30-Jul-2013 00:01:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0022028-026		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	25
Lims Batch ID:	95368	Lims Sample ID:	26
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m		
Last Update:	30-Jul-2013 11:08:27	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK021		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1006315	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	922438	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	466522	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	236922	9.18	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.479	0.011	0	303493	8.69	
$ 8 Toluene-d8 (Surr)	98	7.151	7.139	0.012	93	827112	6.65	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.582	0.0	93	291627	6.26	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					9
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.313					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.237	3.237	0.0	83	12255	0.4435	
29 Carbon disulfide	76		3.392					9
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
46 2-Butanone (MEK)	43		4.779					
45 cis-1,2-Dichloroethene	96		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					9
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78	5.538	5.538	0.0	25	15249	0.1294	
59 1,2-Dichloroethane	62		5.550					
63 Trichloroethene	130		6.084					
65 Methylcyclohexane	83		6.250					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.510					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.933					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.285					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					9
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

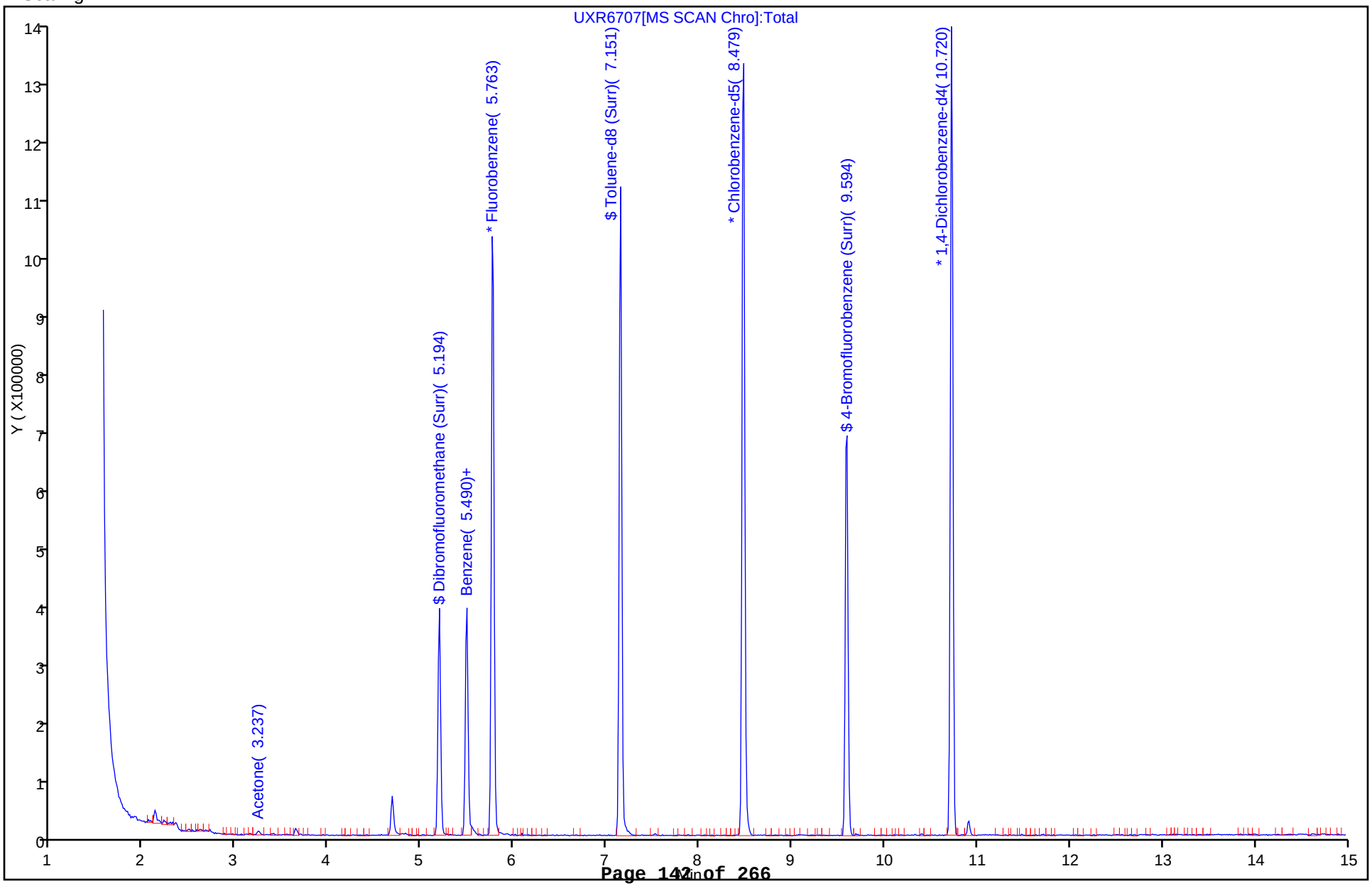
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 30-Jul-2013 11:08:37 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6707.D		
Injection Date:	30-Jul-2013 00:01:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-007	Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	26
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:

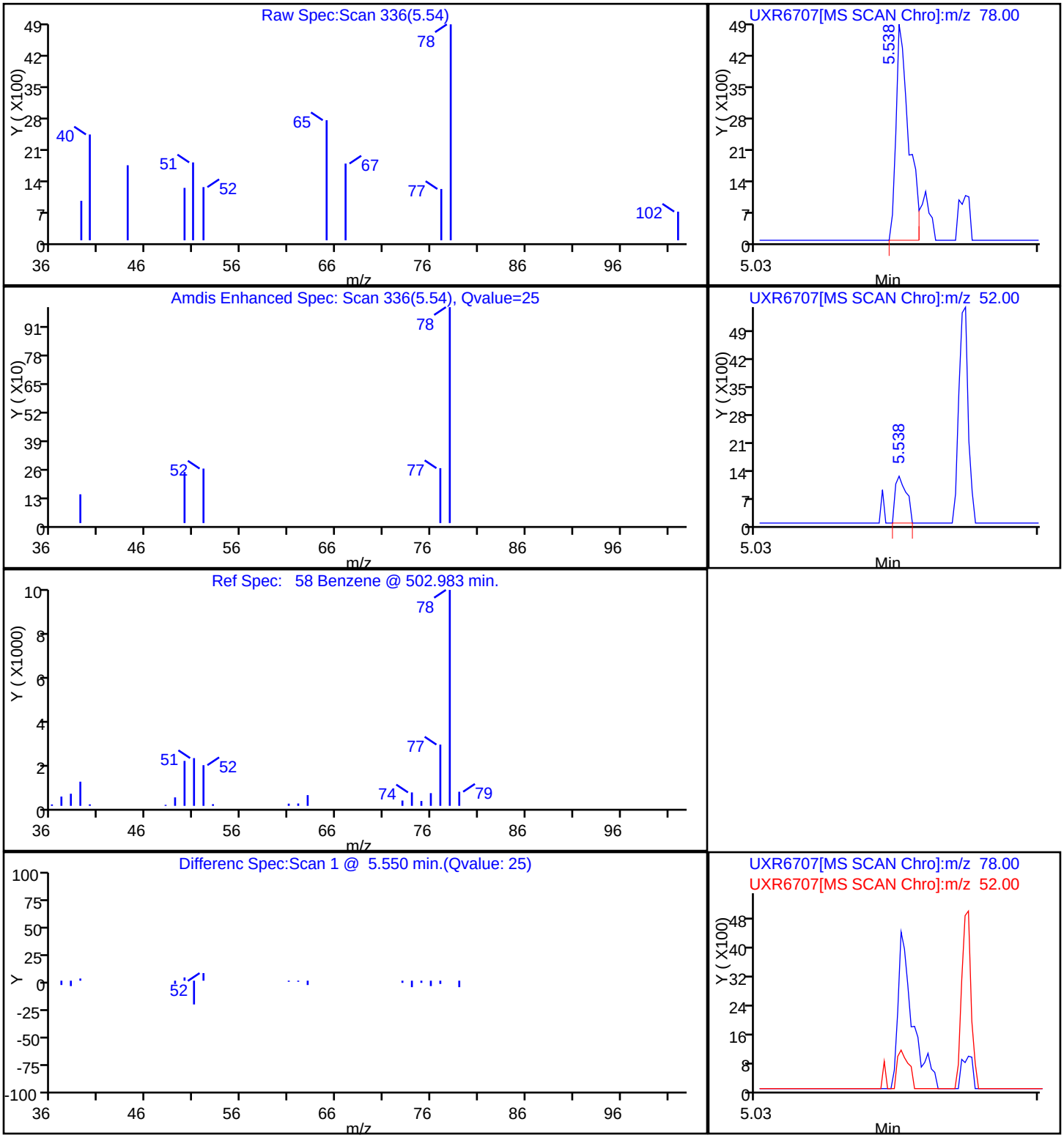


Report Date: 30-Jul-2013 11:08:37 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6707.D		
Injection Date:	30-Jul-2013 00:01:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-007	Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	26
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

58 Benzene



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-008 | Lab Sample ID: 240-27035-8

Matrix: Water | Lab File ID: UXR6678.D

Analysis Method: 8260B | Date Collected: 07/18/2013 16:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 21:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-008 | Lab Sample ID: 240-27035-8

Matrix: Water | Lab File ID: UXR6678.D

Analysis Method: 8260B | Date Collected: 07/18/2013 16:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 21:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129
460-00-4	4-Bromofluorobenzene (Surr)	74		66-117
2037-26-5	Toluene-d8 (Surr)	79		74-115
1868-53-7	Dibromofluoromethane (Surr)	103		75-121

Report Date: 29-Jul-2013 10:59:01 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6678.D
Lims ID: 240-27035-B-8 Client ID: GW-7097-071813-SK-008
Inject. Date: 27-Jul-2013 21:38:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0021993-024
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 23
Lims Batch ID: 95231 Lims Sample ID: 24
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m
Last Update: 29-Jul-2013 10:58:51 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK027

First Level Reviewer: williamsla Date: 29-Jul-2013 10:55:59

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1060575	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	86	945292	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	495696	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	249767	9.19	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	319339	8.68	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	897587	7.04	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	315834	6.61	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					9
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.249	3.237	0.012	65	11185	0.2662	
29 Carbon disulfide	76		3.392					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
45 cis-1,2-Dichloroethene	96		4.779					
46 2-Butanone (MEK)	43		4.779					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78		5.538					9
59 1,2-Dichloroethane	62		5.550					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					9
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

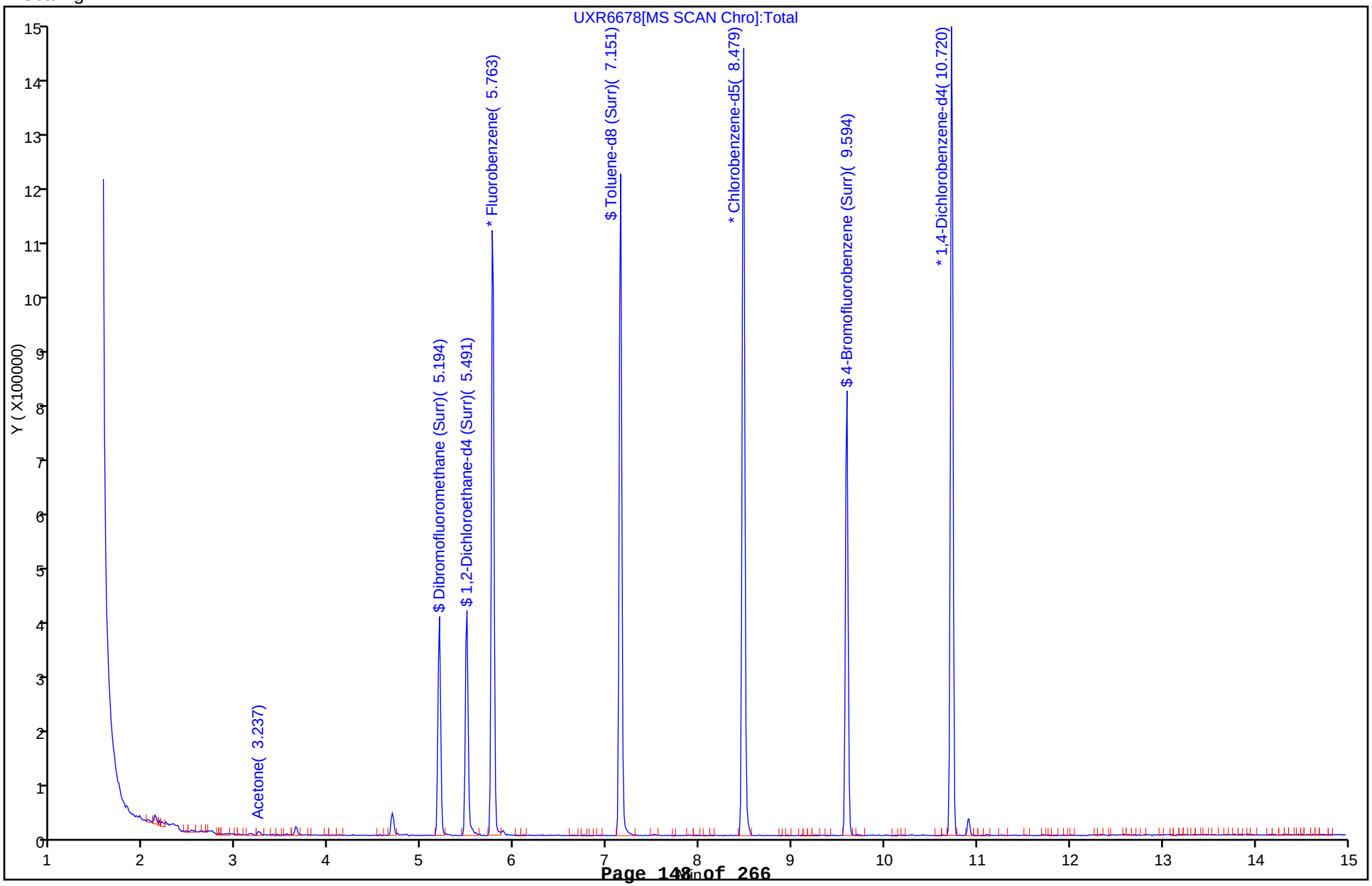
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:59:01 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6678.D		
Injection Date:	27-Jul-2013 21:38:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-008	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	24
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: TB-7097-071813-SK | Lab Sample ID: 240-27035-9

Matrix: Water | Lab File ID: UXR6679.D

Analysis Method: 8260B | Date Collected: 07/18/2013 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 22:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	1.1	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: TB-7097-071813-SK | Lab Sample ID: 240-27035-9

Matrix: Water | Lab File ID: UXR6679.D

Analysis Method: 8260B | Date Collected: 07/18/2013 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 22:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129
460-00-4	4-Bromofluorobenzene (Surr)	72		66-117
2037-26-5	Toluene-d8 (Surr)	77		74-115
1868-53-7	Dibromofluoromethane (Surr)	104		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6679.D		
Lims ID:	240-27035-A-9	Client ID:	TB-7097-071813-SK
Inject. Date:	27-Jul-2013 22:00:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0021993-025		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	24
Lims Batch ID:	95231	Lims Sample ID:	25
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:51	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		

First Level Reviewer: williamsla Date: 29-Jul-2013 10:56:24

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1021877	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	86	933590	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	474840	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	242434	9.25	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	313377	8.84	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	861475	6.84	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	304444	6.46	
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
21 Trichlorofluoromethane	101		2.668					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					
27 Acetone	43	3.237	3.237	0.0	87	18739	1.11	
29 Carbon disulfide	76		3.392					
32 Methyl acetate	43	3.546	3.534	0.012	58	3311	0.1360	
33 Methylene Chloride	84		3.641					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
39 1,1-Dichloroethane	63		4.269					
45 cis-1,2-Dichloroethene	96		4.779					
46 2-Butanone (MEK)	43		4.779					
52 Chloroform	83		5.052					9
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
58 Benzene	78		5.538					9
59 1,2-Dichloroethane	62		5.550					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
63 Trichloroethene	130		6.083					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
70 Dichlorobromomethane	83		6.522					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
78 1,1,2-Trichloroethane	97		7.566					
79 Tetrachloroethene	164		7.696					
82 2-Hexanone	43		7.779					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
87 Chlorobenzene	112		8.503					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					9
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
95 Isopropylbenzene	105		9.428					
97 1,1,2,2-Tetrachloroethane	83		9.724					
103 1,3,5-Trimethylbenzene	105		9.997					
106 1,2,4-Trimethylbenzene	105		10.364					
108 1,3-Dichlorobenzene	146		10.661					
110 1,4-Dichlorobenzene	146		10.744					
113 1,2-Dichlorobenzene	146		11.123					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
116 1,2,4-Trichlorobenzene	180		12.724					
S 124 Xylenes, Total	106		16.530					7

QC Flag Legend

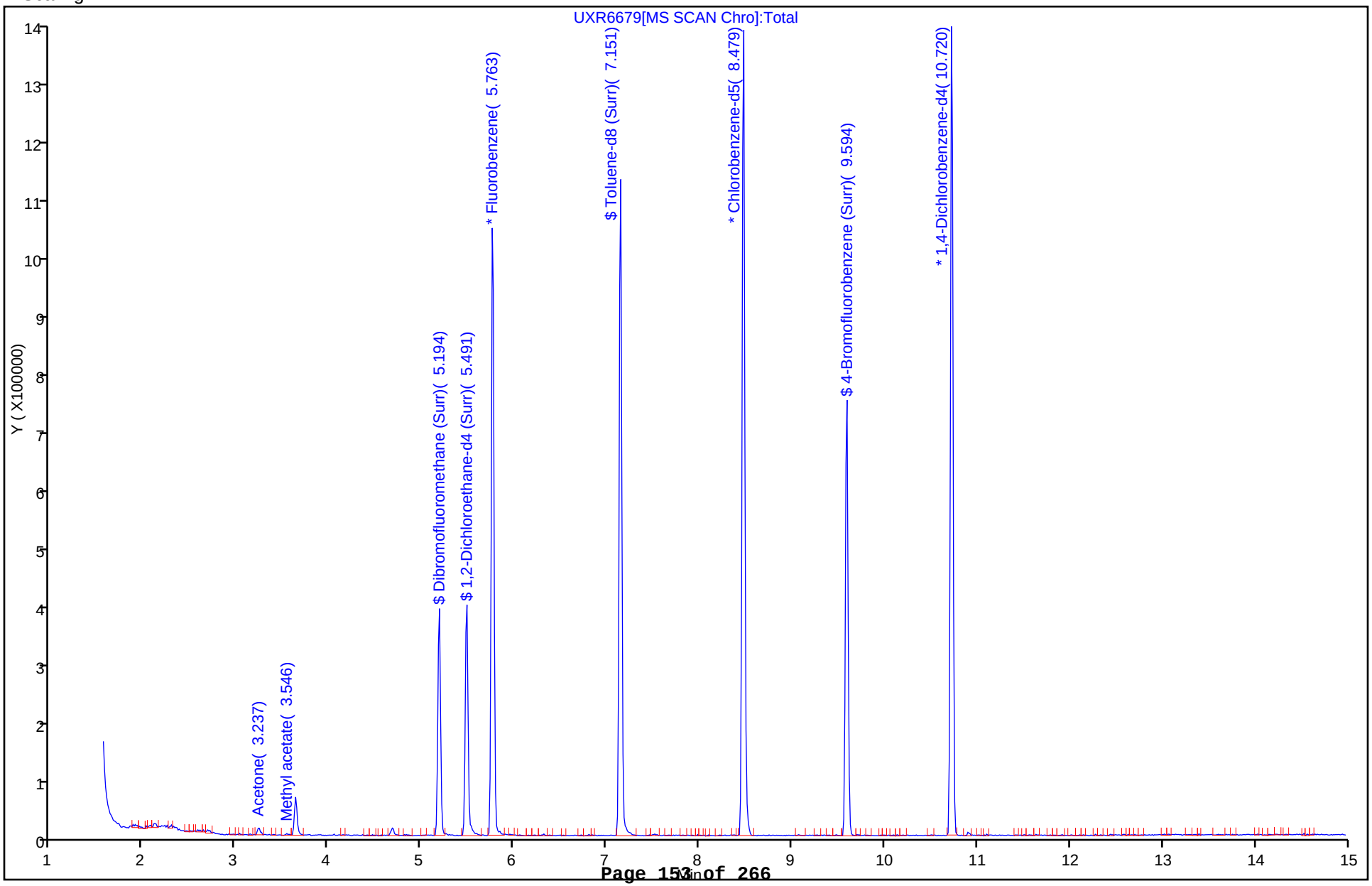
Processing Flags
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:59:02 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6679.D		
Injection Date:	27-Jul-2013 22:00:30	Limit Group:	MSV 8260B ICAL
Client ID:	TB-7097-071813-SK	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	25
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:

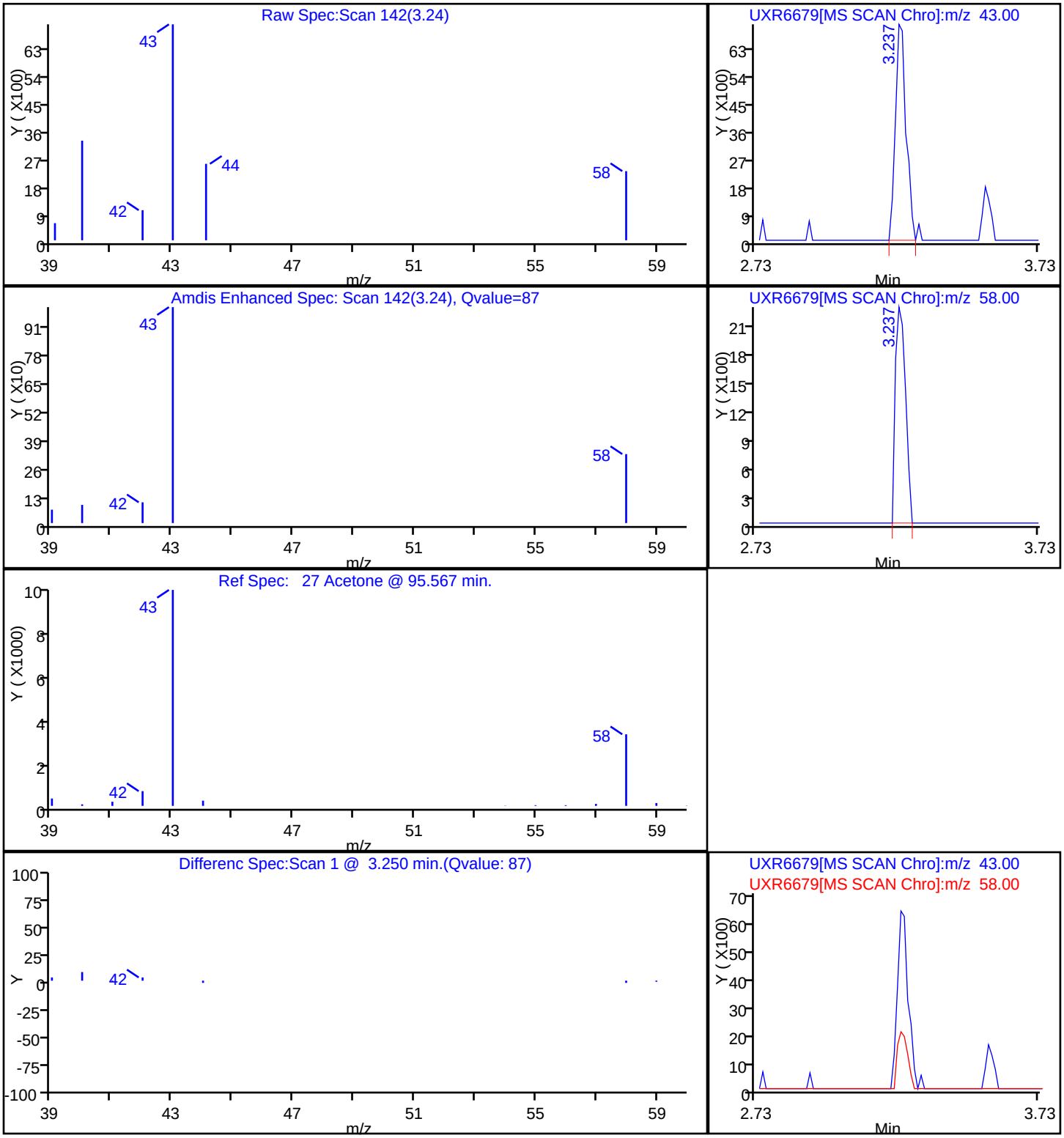


Report Date: 29-Jul-2013 10:59:02 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6679.D		
Injection Date:	27-Jul-2013 22:00:30	Limit Group:	MSV 8260B ICAL
Client ID:	TB-7097-071813-SK	Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	25
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

27 Acetone



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-92260/7	UXR6129.D
Level 2	STD8260 240-92260/6	UXR6128.D
Level 3	STD8260 240-92260/5	UXR6127.D
Level 4	STD8260 240-92260/4	UXR6126.D
Level 5	STD8260 240-92260/3	UXR6125.D
Level 6	STD8260 240-92260/2	UXR6124.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3223 0.3393	0.3181	0.3024	0.3004	0.3388	Ave		0.3202				5.3		15.0			
Chloromethane	0.4544 0.4578	0.4523	0.3929	0.4056	0.4875	Ave		0.4418			0.1000	8.0		15.0			
Vinyl chloride	0.4102 0.3798	0.3589	0.3503	0.3461	0.3994	Ave		0.3741				7.1		15.0			
Bromomethane	0.1230 0.1142	0.1222	0.0977	0.1057	0.1303	Ave		0.1155				10.0		15.0			
Chloroethane	0.1129 0.1281	0.1159	0.0846	0.1067	0.1312	Ave		0.1132				15.0		15.0			
Trichlorofluoromethane	0.3421 0.3476	0.3140	0.2938	0.3068	0.3554	Ave		0.3266				7.7		15.0			
Acrolein	0.0511 0.0494	0.0454	0.0435	0.0467	0.0511	Ave		0.0479				6.6		15.0			
1,1-Dichloroethene	0.2571 0.2867	0.2790	0.2658	0.2658	0.3037	Ave		0.2763				6.2		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2376 0.2392	0.2346	0.2256	0.2277	0.2502	Ave		0.2358				3.8		15.0			
Acetone	0.1744 0.0914	0.1137	0.0964	0.0931	0.0997	Lin1	0.0810	0.0920							0.9980		0.9900
Iodomethane	0.3498 0.4346	0.3974	0.3967	0.3960	0.4630	Ave		0.4062				9.5		15.0			
Carbon disulfide	0.7196 0.8532	0.7423	0.7167	0.7319	0.8720	Ave		0.7726				9.1		15.0			
Acetonitrile	0.0456 0.0363	0.0399	0.0281	0.0351	0.0309	Lin1	0.0404	0.0341							0.9910		0.9900
Methyl acetate	0.2619 0.2316	0.2391	0.2253	0.2251	0.2463	Ave		0.2382				6.0		15.0			
Methylene Chloride	1.1339 0.3108	0.5024	0.3675	0.3274	0.3357	Lin1	0.4058	0.3018							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methyl-2-propanol	0.0200 0.0192	0.0202	0.0152	0.0193	0.0162	Ave		0.0184				12.0		15.0			
Acrylonitrile	0.1340 0.1211	0.1183	0.1163	0.1204	0.1315	Ave		0.1236				5.9		15.0			
Methyl tert-butyl ether	0.7215 0.7881	0.7180	0.7115	0.7210	0.8152	Ave		0.7459				5.9		15.0			
trans-1,2-Dichloroethene	0.2980 0.3126	0.2933	0.2935	0.2838	0.3255	Ave		0.3011				5.1		15.0			
Hexane	0.0647 0.0811	0.0684	0.0717	0.0771	0.0870	Ave		0.0750				11.0		15.0			
1,1-Dichloroethane	0.4693 0.5520	0.5186	0.5101	0.5082	0.5741	Ave		0.5220			0.1000	7.0		15.0			
Vinyl acetate	0.0413 0.0541	0.0420	0.0414	0.0446	0.0553	Ave		0.0464				14.0		15.0			
2,2-Dichloropropane	0.2591 0.3070	0.2724	0.2646	0.2756	0.3223	Ave		0.2835				8.9		15.0			
cis-1,2-Dichloroethene	0.2858 0.3181	0.3108	0.2951	0.2946	0.3295	Ave		0.3056				5.4		15.0			
2-Butanone (MEK)	0.1485 0.1278	0.1310	0.1199	0.1285	0.1339	Ave		0.1316				7.2		15.0			
Chlorobromomethane	0.1398 0.1527	0.1469	0.1440	0.1386	0.1587	Ave		0.1468				5.3		15.0			
Tetrahydrofuran	0.0722 0.0804	0.0844	0.0811	0.0775	0.0849	Ave		0.0801				5.9		15.0			
Chloroform	0.4852 0.5245	0.4983	0.4978	0.4775	0.5543	Ave		0.5063				5.6		15.0			
1,1,1-Trichloroethane	0.3690 0.4340	0.3962	0.3904	0.4052	0.4480	Ave		0.4071				7.2		15.0			
Cyclohexane	0.4887 0.6445	0.5424	0.5673	0.5896	0.6635	Ave		0.5827				11.0		15.0			
1,1-Dichloropropene	0.3484 0.4169	0.3664	0.3760	0.3807	0.4327	Ave		0.3869				8.2		15.0			
Carbon tetrachloride	0.3418 0.4159	0.3617	0.3578	0.3669	0.4185	Ave		0.3771				8.5		15.0			
Benzene	1.1898 1.1961	1.1603	1.1274	1.1009	1.2515	Ave		1.1710				4.6		15.0			
1,2-Dichloroethane	0.3930 0.4351	0.4136	0.4178	0.4053	0.4559	Ave		0.4201				5.3		15.0			
Trichloroethene	0.2698 0.3135	0.2986	0.2884	0.2943	0.3227	Ave		0.2979				6.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.4315 0.5318	0.4455	0.4468	0.5032	0.5380	Ave		0.4828				9.8		15.0			
1,2-Dichloropropane	0.2862 0.3044	0.2800	0.2821	0.2832	0.3164	Ave		0.2921				5.1		15.0			
Dibromomethane	0.1395 0.1609	0.1519	0.1489	0.1510	0.1651	Ave		0.1529				5.9		15.0			
1,4-Dioxane	0.0023 0.0025	0.0030	0.0022	0.0030	0.0022	Ave		0.0025				14.0		15.0			
Bromodichloromethane	0.2888 0.3879	0.3306	0.3279	0.3403	0.3820	Ave		0.3429				11.0		15.0			
2-Chloroethyl vinyl ether	0.1405 0.1783	0.1405	0.1501	0.1612	0.1837	Ave		0.1590				12.0		15.0			
cis-1,3-Dichloropropene	0.3115 0.4587	0.3478	0.3667	0.3856	0.4540	Ave		0.3874				15.0		15.0			
4-Methyl-2-pentanone (MIBK)	0.2553 0.2669	0.2545	0.2314	0.2551	0.2782	Ave		0.2569				6.1		15.0			
Toluene	1.3021 1.5660	1.4857	1.5259	1.4959	1.7627	Ave		1.5230				9.7		15.0			
trans-1,3-Dichloropropene	0.3095 0.4917	0.3622	0.4125	0.4256	0.5422	Lin1	-0.156	0.4987							0.9930		0.9900
Ethyl methacrylate	0.2873 0.4520	0.3617	0.3962	0.4120	0.5071	Lin1	-0.128	0.4640							0.9940		0.9900
1,1,2-Trichloroethane	0.2620 0.2919	0.2917	0.3126	0.2924	0.3429	Ave		0.2989				9.0		15.0			
Tetrachloroethene	0.3251 0.3387	0.3449	0.3322	0.3316	0.3809	Ave		0.3422				5.9		15.0			
1,3-Dichloropropane	0.5100 0.5344	0.5403	0.5472	0.5294	0.6145	Ave		0.5460				6.6		15.0			
2-Hexanone	0.2134 0.2235	0.2009	0.2121	0.2203	0.2588	Ave		0.2215				9.0		15.0			
Dibromochloromethane	0.2672 0.3403	0.2767	0.2875	0.3009	0.3614	Ave		0.3056				12.0		15.0			
1,2-Dibromoethane	0.2718 0.3078	0.2933	0.2979	0.2998	0.3406	Ave		0.3019				7.5		15.0			
Chlorobenzene	1.0336 1.0296	1.0736	0.9932	1.0160	1.1012	Ave		1.0412			0.3000	3.8		15.0			
1,1,1,2-Tetrachloroethane	0.3225 0.3679	0.3455	0.3360	0.3498	0.3755	Ave		0.3495				5.6		15.0			
Ethylbenzene	0.4592 0.5652	0.5397	0.5104	0.5432	0.5908	Ave		0.5348				8.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.5523 0.7172	0.6526	0.6529	0.7040	0.7434	Ave		0.6704				10.0		15.0			
o-Xylene	0.5596 0.6746	0.6471	0.5751	0.6530	0.6722	Ave		0.6303				8.0		15.0			
Styrene	0.7832 1.1392	1.0109	0.9596	1.1027	1.1554	Ave		1.0252				14.0		15.0			
Bromoform	0.1587 0.2167	0.1855	0.1679	0.1979	0.2112	Ave		0.1896			0.1000	12.0		15.0			
Isopropylbenzene	1.2975 1.7865	1.6058	1.4021	1.7416	1.6737	Ave		1.5846				12.0		15.0			
1,1,2,2-Tetrachloroethane	0.5949 0.5897	0.6942	0.7135	0.6603	0.7537	Ave		0.6677			0.3000	9.9		15.0			
Bromobenzene	0.7409 0.7971	0.8019	0.8706	0.8037	0.9421	Ave		0.8260				8.5		15.0			
trans-1,4-Dichloro-2-butene	0.1420	0.1606	0.1973	0.1818	0.2574	Ave		0.1878				24.0	*	15.0			
1,2,3-Trichloropropane	0.2483 0.2118	0.2361	0.2538	0.2280	0.2714	Ave		0.2416				8.6		15.0			
N-Propylbenzene	0.6211 0.8461	0.7652	0.8446	0.8150	0.9632	Ave		0.8092				14.0		15.0			
2-Chlorotoluene	0.5766 0.7056	0.6461	0.7207	0.7206	0.8083	Ave		0.6963				11.0		15.0			
1,3,5-Trimethylbenzene	1.7328 2.5501	2.3224	2.4151	2.5420	2.7191	Ave		2.3803				14.0		15.0			
4-Chlorotoluene	0.5810 0.7447	0.7173	0.7968	0.7475	0.8723	Ave		0.7433				13.0		15.0			
tert-Butylbenzene	1.7565 2.2855	2.0708	2.3638	2.2608	2.4174	Ave		2.1925				11.0		15.0			
1,2,4-Trimethylbenzene	1.7940 2.5755	2.3657	2.3673	2.6187	2.6987	Ave		2.4033				14.0		15.0			
sec-Butylbenzene	2.2505 2.9931	2.8678	2.7937	3.0418	3.0878	Ave		2.8391				11.0		15.0			
1,3-Dichlorobenzene	1.5016 1.4651	1.6322	1.5141	1.5531	1.5720	Ave		1.5397				3.8		15.0			
4-Isopropyltoluene	1.9920 2.7142	2.5267	2.3747	2.7364	2.7397	Ave		2.5139				12.0		15.0			
1,4-Dichlorobenzene	1.6614 1.5087	1.6864	1.5588	1.5856	1.6207	Ave		1.6036				4.1		15.0			
n-Butylbenzene	1.9502 2.2067	2.0766	1.8145	2.2005	2.1637	Ave		2.0687				7.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.5565 1.3566	1.5885	1.3652	1.4847	1.4246	Ave		1.4627				6.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1083 0.0945	0.1134	0.0988	0.1178	0.1139	Ave		0.1078				8.6		15.0			
1,3,5-Trichlorobenzene	1.4227 1.0423	1.1833	0.9899	1.1825	1.1199	Ave		1.1568				13.0		15.0			
1,2,4-Trichlorobenzene	1.3992 0.7944	1.0485	0.9061	0.9889	1.0932	Qua	-0.814	1.3217	-0.013						0.9940		0.9900
Hexachlorobutadiene	0.8577 0.4096	0.5785	0.4643	0.5487	0.5226	Qua	-0.164	0.6234	-0.005						0.9980		0.9900
Naphthalene	2.3471	1.7820	1.7350	1.9088	2.0992	Ave		1.9744				13.0		15.0			
1,2,3-Trichlorobenzene	1.5049	0.9894	0.9304	0.8656	1.0349	Lin1	0.1955	0.9536							0.9900		0.9900
Dibromofluoromethane (Surr)	0.2570 0.2718	0.2401	0.2412	0.2422	0.2860	Ave		0.2564				7.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3673 0.3525	0.3374	0.3278	0.3244	0.3727	Ave		0.3470				5.9		15.0			
Toluene-d8 (Surr)	1.3184 1.3778	1.2295	1.3293	1.2752	1.5607	Ave		1.3485				8.6		15.0			
4-Bromofluorobenzene (Surr)	0.5042 0.5333	0.5117	0.4346	0.5246	0.5224	Ave		0.5052				7.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-92260/7	UXR6129.D
Level 2	STD8260 240-92260/6	UXR6128.D
Level 3	STD8260 240-92260/5	UXR6127.D
Level 4	STD8260 240-92260/4	UXR6126.D
Level 5	STD8260 240-92260/3	UXR6125.D
Level 6	STD8260 240-92260/2	UXR6124.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	20544 1717218	82616	201041	402968	820058	0.500 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	28967 2316919	117474	261271	544199	1179862	0.500 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	26145 1922246	93225	232897	464290	966631	0.500 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	7839 578065	31737	64975	141822	315297	0.500 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	7199 648181	30095	56221	143207	317563	0.500 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	21804 1759440	81564	195340	411642	860245	0.500 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	32580 2499093	117943	289526	626411	1237718	5.00 400	20.0	50.0	100	200
1,1-Dichloroethene	FB	Ave	16389 1450888	72470	176724	356617	735108	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	15145 1210840	60931	150034	305423	605613	0.500 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Lin1	22229 924879	59045	128239	249923	482495	1.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	22296 2199525	103227	263789	531251	1120678	0.500 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	45869 4318373	192820	476522	981856	2110562	0.500 40.0	2.00	5.00	10.0	20.0
Acetonitrile	FB	Lin1	29096 1835923	103646	187095	470923	748983	5.00 400	20.0	50.0	100	200
Methyl acetate	FB	Ave	33387 2344207	124233	299622	603952	1192192	1.00 80.0	4.00	10.0	20.0	40.0
Methylene Chloride	FB	Lin1	72277 1572806	130503	244379	439262	812470	0.500 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	25544 1947233	105034	201683	518492	783099	10.0 800	40.0	100	200	400

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	17079 1225942	61471	154610	323073	636448	1.00 80.0	4.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	45991 3988608	186495	473059	967263	1973115	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	18998 1582137	76186	195145	380695	787926	0.500 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	4124 410679	17760	47676	103468	210455	0.500 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	29911 2793615	134709	339151	681834	1389428	0.500 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	2631 273582	10898	27542	59795	133845	0.500 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	16513 1553590	70757	175915	369761	780106	0.500 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	18216 1609940	80737	196189	395240	797580	0.500 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	18929 1293227	68048	159454	344869	648031	1.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	8909 772601	38167	95781	186005	384140	0.500 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	4604 406776	21930	53952	104018	205513	0.500 40.0	2.00	5.00	10.0	20.0
Chloroform	FB	Ave	30925 2654671	129426	331017	640630	1341538	0.500 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	23523 2196753	102909	259576	543658	1084375	0.500 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	31148 3262166	140891	377199	791009	1606020	0.500 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	22210 2110264	95164	249997	510791	1047242	0.500 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	21790 2104895	93958	237933	492179	1012984	0.500 40.0	2.00	5.00	10.0	20.0
Benzene	FB	Ave	75840 6053680	301388	749656	1477002	3029122	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	25052 2201985	107436	277822	543794	1103539	0.500 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	17199 1586467	77559	191768	394872	780987	0.500 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	27504 2691619	115715	297052	675102	1302120	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	18245 1540853	72737	187600	379892	765743	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dibromomethane	FB	Ave	8894 814280	39464	99000	202569	399652	0.500 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Ave	7422 627720	39306	74568	199033	269888	25.0 2000	100	250	500	1000
Bromodichloromethane	FB	Ave	18409 1963013	85876	218026	456571	924497	0.500 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	17906 1804846	72979	199613	432578	889086	1.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	19857 2321639	90338	243832	517339	1098833	0.500 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	32542 2701929	132225	307659	684444	1346799	1.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBZ	Ave	66006 6613398	317715	764865	1631808	3196453	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Lin1	15687 2076609	77451	206770	464285	983209	0.500 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBZ	Lin1	14562 1909006	77347	198620	449480	919507	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	13279 1232919	62369	156705	318922	621796	0.500 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBZ	Ave	16478 1430476	73760	166509	361693	690723	0.500 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	25853 2256950	115546	274309	577470	1114428	0.500 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBZ	Ave	21631 1887808	85924	212649	480544	938491	1.00 80.0	4.00	10.0	20.0	40.0
Dibromochloromethane	CBZ	Ave	13543 1437062	59167	144095	328241	655315	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	13779 1299696	62723	149351	327057	617642	0.500 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBZ	Ave	52398 4348033	229587	497864	1108340	1996944	0.500 40.0	2.00	5.00	10.0	20.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	16346 1553520	73886	168420	381600	680879	0.500 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBZ	Ave	23277 2386708	115415	255857	592582	1071421	0.500 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	55994 6057465	279107	654563	1535937	2696349	1.00 80.0	4.00	10.0	20.0	40.0
o-Xylene	CBZ	Ave	28368 2849048	138378	288263	712270	1218925	0.500 40.0	2.00	5.00	10.0	20.0
Styrene	CBZ	Ave	39702 4810862	216174	481023	1202829	2095292	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Bromoform	CBZ	Ave	8044 915051	39658	84166	215837	383019	0.500 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBZ	Ave	65775 7544732	343391	702832	1899854	3035157	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	17191 1467792	91700	166579	434744	655991	0.500 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCB	Ave	21410 1984110	105921	203254	529205	820006	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	4105	21212	46059	119738	224083	0.500	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	7177 527309	31185	59260	150157	236239	0.500 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCB	Ave	17950 2106041	101075	197183	536641	838383	0.500 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCB	Ave	16662 1756291	85337	168265	474500	703582	0.500 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCB	Ave	50077 6347665	306757	563827	1673760	2366763	0.500 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCB	Ave	16790 1853695	94751	186010	492190	759219	0.500 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCB	Ave	50761 5688969	273520	551861	1488641	2104138	0.500 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCB	Ave	51843 6410921	312474	552663	1724266	2349013	0.500 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCB	Ave	65037 7450304	378796	652213	2002897	2687606	0.500 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	43395 3646907	215589	353492	1022617	1368284	0.500 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCB	Ave	57566 6756063	333744	554399	1801761	2384619	0.500 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	48012 3755321	222756	363906	1044039	1410692	0.500 40.0	2.00	5.00	10.0	20.0
n-Butylbenzene	DCB	Ave	56359 5492943	274289	423614	1448941	1883322	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	44982 3376840	209819	318720	977576	1239957	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	3130 235160	14975	23075	77573	99119	0.500 40.0	2.00	5.00	10.0	20.0
1,3,5-Trichlorobenzene	DCB	Ave	41113 2594495	156299	231091	778597	974767	0.500 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Qua	40436 1977281	138488	211526	651139	951528	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-27035-1 Analy Batch No.: 92260

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2013 09:46 Calibration End Date: 07/02/2013 11:37 Calibration ID: 16141

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Hexachlorobutadiene	DCB	Qua	24786 1019523	76414	108386	361278	454906	0.500 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCB	Ave	67827	235373	405043	1256844	1827134	0.500	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Lin1	43490	130683	217214	569936	900782	0.500	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	16382 1375738	62358	160376	324973	692261	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	23410 1784196	87630	217931	435233	902039	0.500 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	66835 5818791	262927	666346	1391025	2830218	0.500 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	25560 2252295	109425	217868	572279	947401	0.500 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6124.D		
Lims ID:	STD8260 L6	Client ID:	
Inject. Date:	02-Jul-2013 09:46:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	240-0021310-002		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	1
Lims Batch ID:	92260	Lims Sample ID:	2
Sublist:	chrom-8260_17*sub1		
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:05	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		

First Level Reviewer: quayler Date: 02-Jul-2013 12:07:33

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1265304	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	1055782	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	90	622289	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.182	5.194	-0.012	64	1375738	42.4	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.479	5.491	-0.012	0	1784196	40.6	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	5818791	40.9	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.594	-0.012	92	2252295	42.2	
14 Dichlorodifluoromethane	85	1.648	1.660	-0.012	88	1717218	42.4	
15 Chloromethane	50	1.826	1.826	0.0	89	2316919	41.5	
17 Vinyl chloride	62	1.957	1.957	0.0	83	1922246	40.6	
18 Bromomethane	94	2.301	2.313	-0.012	90	578065	39.6	
19 Chloroethane	64	2.419	2.419	0.0	95	648181	45.2	
21 Trichlorofluoromethane	101	2.656	2.668	-0.012	87	1759440	42.6	
24 Acrolein	56	3.083	3.095	-0.012	96	2499093	412.5	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	87	1450888	41.5	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.202	-0.012	83	1210840	40.6	
27 Acetone	43	3.238	3.238	0.0	98	924879	78.5	
28 Iodomethane	142	3.321	3.332	-0.011	98	2199525	42.8	
29 Carbon disulfide	76	3.392	3.392	0.0	99	4318373	44.2	
30 Acetonitrile	41	3.510	3.510	0.0	99	1835923	424.8	
32 Methyl acetate	43	3.534	3.546	-0.012	99	2344207	77.8	
33 Methylene Chloride	84	3.641	3.641	0.0	95	1572806	39.8	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	97	1947233	838.2	
36 Acrylonitrile	53	3.878	3.878	0.0	100	1225942	78.4	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	3988608	42.3	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	95	1582137	41.5	
38 Hexane	86	4.115	4.115	0.0	92	410679	43.3	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	2793615	42.3	
40 Vinyl acetate	86	4.305	4.305	0.0	97	273582	46.6	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	72	1609940	41.6	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	60	1553590	43.3	
46 2-Butanone (MEK)	43	4.779	4.791	-0.012	94	1293227	77.7	
50 Chlorobromomethane	128	4.993	4.993	0.0	94	772601	41.6	
51 Tetrahydrofuran	42	5.028	5.028	0.0	93	406776	40.1	
52 Chloroform	83	5.052	5.052	0.0	71	2654671	41.4	
53 1,1,1-Trichloroethane	97	5.206	5.218	-0.012	92	2196753	42.6	
54 Cyclohexane	56	5.253	5.253	0.0	91	3262166	44.2	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	93	2110264	43.1	
55 Carbon tetrachloride	117	5.348	5.348	0.0	79	2104895	44.1	
58 Benzene	78	5.538	5.538	0.0	96	6053680	40.9	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	2201985	41.4	
63 Trichloroethene	130	6.084	6.084	0.0	94	1586467	42.1	
65 Methylcyclohexane	83	6.250	6.250	0.0	90	2691619	44.1	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	92	1540853	41.7	
69 Dibromomethane	93	6.392	6.392	0.0	88	814280	42.1	
68 1,4-Dioxane	88	6.392	6.392	0.0	62	627720	1948.6	
70 Dichlorobromomethane	83	6.510	6.522	-0.012	94	1963013	45.2	
72 2-Chloroethyl vinyl ether	63	6.759	6.760	-0.001	91	1804846	89.7	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	90	2321639	47.4	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	97	2701929	83.1	
75 Toluene	91	7.210	7.210	0.0	98	6613398	41.1	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	90	2076609	39.8	
77 Ethyl methacrylate	69	7.447	7.459	-0.012	90	1909006	39.2	
78 1,1,2-Trichloroethane	97	7.566	7.578	-0.012	87	1232919	39.1	
79 Tetrachloroethene	164	7.696	7.708	-0.012	93	1430476	39.6	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	2256950	39.2	
82 2-Hexanone	43	7.779	7.779	0.0	96	1887808	80.7	
84 Chlorodibromomethane	129	7.945	7.945	0.0	89	1437062	44.5	
85 Ethylene Dibromide	107	8.052	8.064	-0.012	98	1299696	40.8	
87 Chlorobenzene	112	8.503	8.503	0.0	94	4348033	39.6	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	1553520	42.1	
89 Ethylbenzene	106	8.586	8.586	0.0	98	2386708	42.3	
90 m-Xylene & p-Xylene	106	8.704	8.692	0.012	100	6057465	85.6	
91 o-Xylene	106	9.084	9.084	0.0	93	2849048	42.8	
92 Styrene	104	9.096	9.096	0.0	93	4810862	44.4	
93 Bromoform	173	9.297	9.297	0.0	99	915051	45.7	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	7544732	45.1	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	77	1467792	35.3	
98 Bromobenzene	156	9.748	9.748	0.0	76	1984110	38.6	
100 1,2,3-Trichloropropane	110	9.772	9.772	0.0	77	527309	35.1	
99 trans-1,4-Dichloro-2-butene	53	9.772	9.772	0.0	54	501926	42.9	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	2106041	41.8	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	1756291	40.5	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	84	6347665	42.9	
104 4-Chlorotoluene	126	10.032	10.032	0.0	97	1853695	40.1	
105 tert-Butylbenzene	119	10.317	10.317	0.0	91	5688969	41.7	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	6410921	42.9	
107 sec-Butylbenzene	105	10.530	10.531	0.0	94	7450304	42.2	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	98	3646907	38.1	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	97	6756063	43.2	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	94	3755321	37.6	

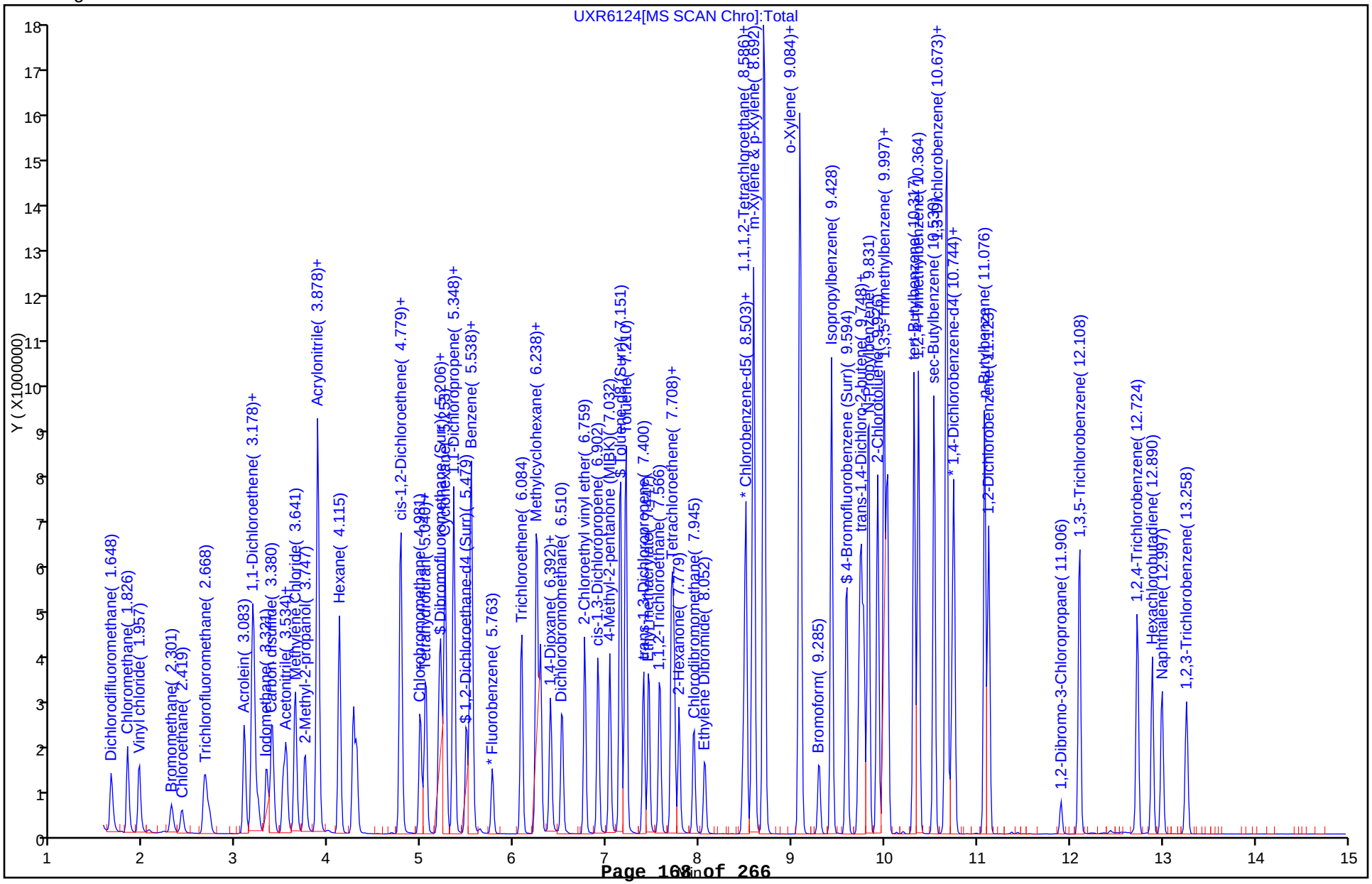
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
112 n-Butylbenzene	91	11.076	11.076	0.0	96	5492943	42.7	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	96	3376840	37.1	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	87	235160	35.1	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	96	2594495	36.0	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	1977281	39.3	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	91	1019523	39.8	
118 Naphthalene	128	12.997	12.997	0.0	100	3202425	26.1	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	1283542	21.4	
S 121 Trihalomethanes, Total	1				0		176.9	
S 122 1,2-Dichloroethene, Total	96				0		83.2	
S 123 1,3-Dichloropropene, Total	75				0		87.1	
S 124 Xylenes, Total	106				0		128.4	

Report Date: 03-Jul-2013 08:41:06 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6124.D		
Injection Date:	02-Jul-2013 09:46:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	2
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6125.D		
Lims ID:	STD8260 L5	Client ID:	
Inject. Date:	02-Jul-2013 10:08:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	5
Sample ID:	240-0021310-003		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	2
Lims Batch ID:	92260	Lims Sample ID:	3
Sublist:	chrom-8260_17*sub1		
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:07	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1210190	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	85	906707	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	88	435204	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	59	692261	22.3	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.491	0.0	0	902039	21.5	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	2830218	23.1	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	947401	20.7	
14 Dichlorodifluoromethane	85	1.660	1.660	0.0	87	820058	21.2	
15 Chloromethane	50	1.826	1.826	0.0	89	1179862	22.1	
17 Vinyl chloride	62	1.957	1.957	0.0	83	966631	21.4	
18 Bromomethane	94	2.324	2.313	0.011	90	315297	22.6	
19 Chloroethane	64	2.419	2.419	0.0	95	317563	23.2	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	87	860245	21.8	
24 Acrolein	56	3.095	3.095	0.0	96	1237718	213.6	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	735108	22.0	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.202	0.0	82	605613	21.2	
27 Acetone	43	3.237	3.238	-0.001	99	482495	42.4	
28 Iodomethane	142	3.332	3.332	0.0	98	1120678	22.8	
29 Carbon disulfide	76	3.392	3.392	0.0	99	2110562	22.6	
30 Acetonitrile	41	3.510	3.510	0.0	100	748983	180.5	
32 Methyl acetate	43	3.546	3.546	0.0	99	1192192	41.4	
33 Methylene Chloride	84	3.641	3.641	0.0	94	812470	20.9	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	94	783099	352.4	
36 Acrylonitrile	53	3.878	3.878	0.0	99	636448	42.6	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	1973115	21.9	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	94	787926	21.6	
38 Hexane	86	4.115	4.115	0.0	93	210455	23.2	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	1389428	22.0	
40 Vinyl acetate	86	4.305	4.305	0.0	97	133845	23.8	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	72	797580	21.6	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	61	780106	22.7	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
46 2-Butanone (MEK)	43	4.791	4.791	0.0	95	648031	40.7	
50 Chlorobromomethane	128	4.993	4.993	-0.001	93	384140	21.6	
51 Tetrahydrofuran	42	5.028	5.028	0.0	91	205513	21.2	
52 Chloroform	83	5.052	5.052	0.0	70	1341538	21.9	
53 1,1,1-Trichloroethane	97	5.218	5.218	0.0	90	1084375	22.0	
54 Cyclohexane	56	5.253	5.253	0.0	91	1606020	22.8	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	93	1047242	22.4	
55 Carbon tetrachloride	117	5.360	5.348	0.012	82	1012984	22.2	
58 Benzene	78	5.538	5.538	0.0	97	3029122	21.4	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	1103539	21.7	
63 Trichloroethene	130	6.083	6.084	-0.001	93	780987	21.7	
65 Methylcyclohexane	83	6.250	6.250	0.0	92	1302120	22.3	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	89	765743	21.7	
69 Dibromomethane	93	6.392	6.392	0.0	90	399652	21.6	
68 1,4-Dioxane	88	6.392	6.392	0.0	57	269888	875.9	
70 Dichlorobromomethane	83	6.522	6.522	0.0	94	924497	22.3	
72 2-Chloroethyl vinyl ether	63	6.759	6.760	-0.001	91	889086	46.2	
73 cis-1,3-Dichloropropene	75	6.914	6.902	0.012	90	1098833	23.4	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	96	1346799	43.3	
75 Toluene	91	7.210	7.210	0.0	97	3196453	23.1	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	90	983209	22.1	
77 Ethyl methacrylate	69	7.459	7.459	0.0	90	919507	22.1	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	86	621796	22.9	
79 Tetrachloroethene	164	7.708	7.708	0.0	92	690723	22.3	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	1114428	22.5	
82 2-Hexanone	43	7.779	7.779	0.0	95	938491	46.7	
84 Chlorodibromomethane	129	7.945	7.945	0.0	88	655315	23.6	
85 Ethylene Dibromide	107	8.064	8.064	0.0	97	617642	22.6	
87 Chlorobenzene	112	8.503	8.503	0.0	94	1996944	21.2	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	680879	21.5	
89 Ethylbenzene	106	8.586	8.586	0.0	98	1071421	22.1	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	2696349	44.4	
91 o-Xylene	106	9.084	9.084	0.0	92	1218925	21.3	
92 Styrene	104	9.096	9.096	0.0	93	2095292	22.5	
93 Bromoform	173	9.297	9.297	0.0	98	383019	22.3	
95 Isopropylbenzene	105	9.428	9.428	0.0	96	3035157	21.1	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	84	655991	22.6	
98 Bromobenzene	156	9.748	9.748	0.0	83	820006	22.8	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	77	236239	22.5	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	63	224083	27.4	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	838383	23.8	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	703582	23.2	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	80	2366763	22.8	
104 4-Chlorotoluene	126	10.032	10.032	0.0	97	759219	23.5	
105 tert-Butylbenzene	119	10.317	10.317	0.0	91	2104138	22.1	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	77	2349013	22.5	
107 sec-Butylbenzene	105	10.530	10.531	0.0	93	2687606	21.8	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	1368284	20.4	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	94	2384619	21.8	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	93	1410692	20.2	
112 n-Butylbenzene	91	11.076	11.076	0.0	96	1883322	20.9	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	96	1239957	19.5	

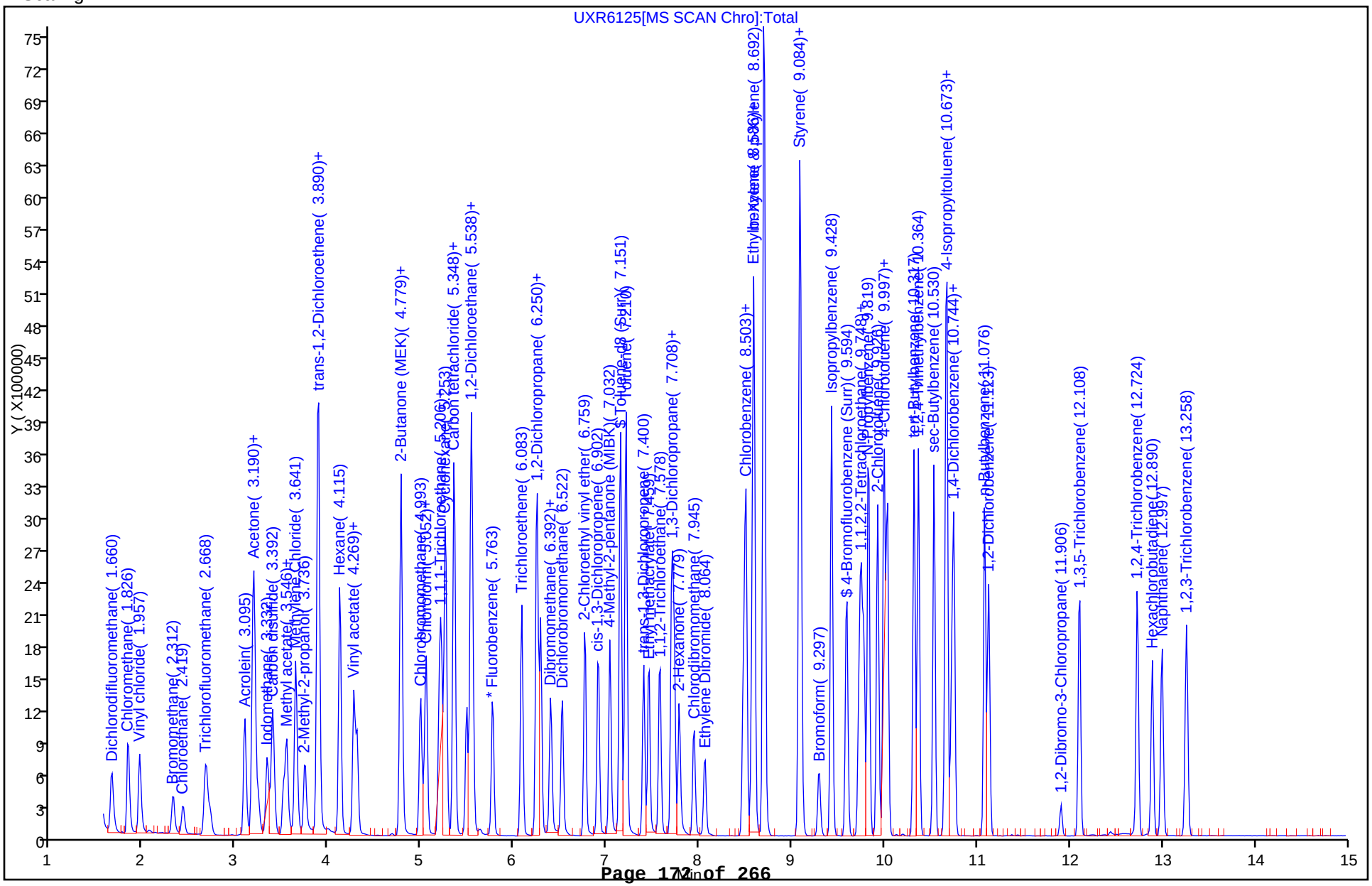
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	79	99119	21.1	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	98	974767	19.4	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	951528	21.6	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	91	454906	20.6	
118 Naphthalene	128	12.997	12.997	0.0	100	1827134	21.3	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	900782	21.5	
S 121 Trihalomethanes, Total	1				0		90.1	
S 122 1,2-Dichloroethene, Total	96				0		43.2	
S 123 1,3-Dichloropropene, Total	75				0		45.5	
S 124 Xylenes, Total	106				0		65.7	

Report Date: 03-Jul-2013 08:41:08 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6125.D		
Injection Date:	02-Jul-2013 10:08:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	3
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6126.D		
Lims ID:	STD8260 L4	Client ID:	
Inject. Date:	02-Jul-2013 10:31:30	Dil. Factor:	1.0000
Sample Type:	ICIS	Calib Level:	4
Sample ID:	240-0021310-004		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	3
Lims Batch ID:	92260	Lims Sample ID:	4
Sublist:	chrom-8260_17*sub1		
Detector:	MS SCAN		
Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:09	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		

First Level Reviewer: quayler Date: 02-Jul-2013 12:13:49

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1341606	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	1090840	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	72	658450	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	68	324973	9.45	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.491	0.0	0	435233	9.35	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	1391025	9.46	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	95	572279	10.4	
14 Dichlorodifluoromethane	85	1.660	1.660	0.0	87	402968	9.38	
15 Chloromethane	50	1.826	1.826	0.0	89	544199	9.18	
17 Vinyl chloride	62	1.957	1.957	0.0	83	464290	9.25	
18 Bromomethane	94	2.313	2.313	0.0	90	141822	9.15	
19 Chloroethane	64	2.419	2.419	0.0	94	143207	9.43	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	87	411642	9.39	
24 Acrolein	56	3.095	3.095	0.0	97	626411	97.5	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	356617	9.62	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.202	0.0	82	305423	9.65	
27 Acetone	43	3.238	3.238	0.0	96	249923	19.4	
28 Iodomethane	142	3.332	3.332	0.0	99	531251	9.75	
29 Carbon disulfide	76	3.392	3.392	0.0	99	981856	9.47	
30 Acetonitrile	41	3.510	3.510	0.0	99	470923	101.9	
32 Methyl acetate	43	3.546	3.546	0.0	98	603952	18.9	
33 Methylene Chloride	84	3.641	3.641	0.0	94	439262	9.50	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	93	518492	210.5	
36 Acrylonitrile	53	3.878	3.878	0.0	99	323073	19.5	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	967263	9.67	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	94	380695	9.42	
38 Hexane	86	4.115	4.115	0.0	94	103468	10.3	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	681834	9.74	
40 Vinyl acetate	86	4.305	4.305	0.0	97	59795	9.60	

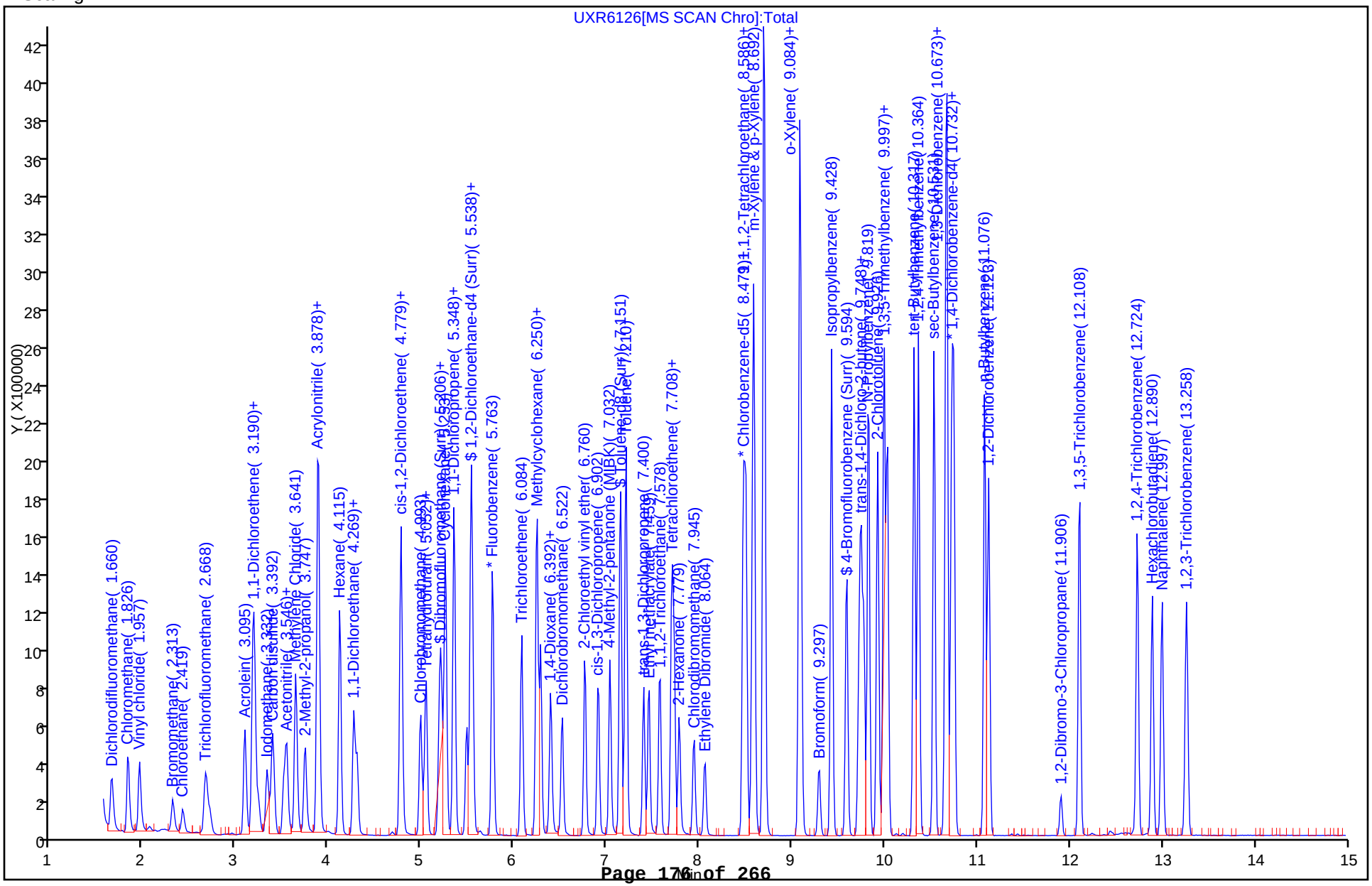
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	71	395240	9.64	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	61	369761	9.72	
46 2-Butanone (MEK)	43	4.791	4.791	0.0	94	344869	19.5	
50 Chlorobromomethane	128	4.993	4.993	0.0	94	186005	9.44	
51 Tetrahydrofuran	42	5.028	5.028	0.0	94	104018	9.68	
52 Chloroform	83	5.052	5.052	0.0	71	640630	9.43	
53 1,1,1-Trichloroethane	97	5.218	5.218	0.0	91	543658	9.95	
54 Cyclohexane	56	5.253	5.253	0.0	92	791009	10.1	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	93	510791	9.84	
55 Carbon tetrachloride	117	5.348	5.348	0.0	81	492179	9.73	
58 Benzene	78	5.538	5.538	0.0	97	1477002	9.40	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	85	543794	9.65	
63 Trichloroethene	130	6.084	6.084	0.0	93	394872	9.88	
65 Methylcyclohexane	83	6.250	6.250	0.0	90	675102	10.4	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	94	379892	9.70	
69 Dibromomethane	93	6.392	6.392	0.0	88	202569	9.88	
68 1,4-Dioxane	88	6.392	6.392	0.0	71	199033	582.7	
70 Dichlorobromomethane	83	6.522	6.522	0.0	93	456571	9.92	
72 2-Chloroethyl vinyl ether	63	6.760	6.760	0.0	90	432578	20.3	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	90	517339	9.95	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	96	684444	19.9	
75 Toluene	91	7.210	7.210	0.0	98	1631808	9.82	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	464285	8.85	
77 Ethyl methacrylate	69	7.459	7.459	0.0	90	449480	9.16	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	87	318922	9.78	
79 Tetrachloroethene	164	7.708	7.708	0.0	92	361693	9.69	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	577470	9.70	
82 2-Hexanone	43	7.779	7.779	0.0	95	480544	19.9	
84 Chlorodibromomethane	129	7.945	7.945	0.0	88	328241	9.85	
85 Ethylene Dibromide	107	8.064	8.064	0.0	98	327057	9.93	
87 Chlorobenzene	112	8.503	8.503	0.0	95	1108340	9.76	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	82	381600	10.0	
89 Ethylbenzene	106	8.586	8.586	0.0	98	592582	10.2	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1535937	21.0	
91 o-Xylene	106	9.084	9.084	0.0	95	712270	10.4	
92 Styrene	104	9.096	9.096	0.0	93	1202829	10.8	
93 Bromoform	173	9.297	9.297	0.0	98	215837	10.4	
95 Isopropylbenzene	105	9.428	9.428	0.0	96	1899854	11.0	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	77	434744	9.89	
98 Bromobenzene	156	9.748	9.748	0.0	76	529205	9.73	
100 1,2,3-Trichloropropane	110	9.772	9.772	0.0	71	150157	9.44	
99 trans-1,4-Dichloro-2-butene	53	9.772	9.772	0.0	52	119738	9.68	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	536641	10.1	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	474500	10.3	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	80	1673760	10.7	
104 4-Chlorotoluene	126	10.032	10.032	0.0	97	492190	10.1	
105 tert-Butylbenzene	119	10.317	10.317	0.0	91	1488641	10.3	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1724266	10.9	
107 sec-Butylbenzene	105	10.531	10.531	0.0	94	2002897	10.7	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	98	1022617	10.1	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	96	1801761	10.9	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	92	1044039	9.89	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
112 n-Butylbenzene	91	11.076	11.076	0.0	94	1448941	10.6	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	96	977576	10.2	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	78	77573	10.9	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	97	778597	10.2	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	651139	8.84	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	91	361278	9.88	
118 Naphthalene	128	12.997	12.997	0.0	100	1256844	9.67	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	569936	8.87	
S 121 Trihalomethanes, Total	1				0		39.6	
S 122 1,2-Dichloroethene, Total	96				0		19.1	
S 123 1,3-Dichloropropene, Total	75				0		18.8	
S 124 Xylenes, Total	106				0		31.4	

Report Date: 03-Jul-2013 08:41:09 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6126.D		
Injection Date:	02-Jul-2013 10:31:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	4
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm
Y Scaling:			



TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6127.D		
Lims ID:	STD8260 L3	Client ID:	
Inject. Date:	02-Jul-2013 10:53:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	240-0021310-005		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	4
Lims Batch ID:	92260	Lims Sample ID:	5
Sublist:	chrom-8260_17*sub1		
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:11	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1329835	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	1002542	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	93	466919	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	60	160376	4.70	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.491	-0.001	0	217931	4.72	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	666346	4.93	
$ 9 4-Bromofluorobenzene (Surr)	95	9.593	9.594	-0.001	94	217868	4.30	
14 Dichlorodifluoromethane	85	1.660	1.660	0.0	86	201041	4.72	
15 Chloromethane	50	1.826	1.826	0.0	89	261271	4.45	
17 Vinyl chloride	62	1.957	1.957	0.0	83	232897	4.68	
18 Bromomethane	94	2.324	2.313	0.011	85	64975	4.23	
19 Chloroethane	64	2.431	2.419	0.012	91	56221	3.73	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	85	195340	4.50	
24 Acrolein	56	3.095	3.095	0.0	91	289526	45.5	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	176724	4.81	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.202	0.0	82	150034	4.78	
27 Acetone	43	3.237	3.238	-0.001	92	128239	9.60	
28 Iodomethane	142	3.332	3.332	0.0	98	263789	4.88	
29 Carbon disulfide	76	3.392	3.392	0.0	98	476522	4.64	
30 Acetonitrile	41	3.510	3.510	0.0	98	187095	40.1	
32 Methyl acetate	43	3.546	3.546	0.0	98	299622	9.46	
33 Methylene Chloride	84	3.641	3.641	0.0	94	244379	4.74	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	96	201683	82.6	
36 Acrylonitrile	53	3.878	3.878	0.0	44	154610	9.41	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	473059	4.77	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	95	195145	4.87	
38 Hexane	86	4.115	4.115	0.0	94	47676	4.78	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	339151	4.89	
40 Vinyl acetate	86	4.305	4.305	0.0	96	27542	4.46	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	71	196189	4.83	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	59	175915	4.67	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
46 2-Butanone (MEK)	43	4.791	4.791	0.0	95	159454	9.11	
50 Chlorobromomethane	128	4.992	4.993	-0.001	92	95781	4.91	
51 Tetrahydrofuran	42	5.028	5.028	0.0	90	53952	5.06	
52 Chloroform	83	5.052	5.052	0.0	71	331017	4.92	
53 1,1,1-Trichloroethane	97	5.218	5.218	0.0	91	259576	4.79	
54 Cyclohexane	56	5.253	5.253	0.0	92	377199	4.87	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	93	249997	4.86	
55 Carbon tetrachloride	117	5.360	5.348	0.012	80	237933	4.74	
58 Benzene	78	5.538	5.538	0.0	96	749656	4.81	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	85	277822	4.97	
63 Trichloroethene	130	6.083	6.084	-0.001	94	191768	4.84	
65 Methylcyclohexane	83	6.249	6.250	-0.001	92	297052	4.63	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	89	187600	4.83	
69 Dibromomethane	93	6.392	6.392	0.0	89	99000	4.87	
68 1,4-Dioxane	88	6.392	6.392	0.0	56	74568	220.2	
70 Dichlorobromomethane	83	6.522	6.522	0.0	93	218026	4.78	
72 2-Chloroethyl vinyl ether	63	6.759	6.760	-0.001	90	199613	9.44	
73 cis-1,3-Dichloropropene	75	6.913	6.902	0.011	91	243832	4.73	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	96	307659	9.01	
75 Toluene	91	7.210	7.210	0.0	97	764865	5.01	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	90	206770	4.45	
77 Ethyl methacrylate	69	7.459	7.459	0.0	90	198620	4.55	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	84	156705	5.23	
79 Tetrachloroethene	164	7.708	7.708	0.0	94	166509	4.85	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	93	274309	5.01	
82 2-Hexanone	43	7.779	7.779	0.0	80	212649	9.58	
84 Chlorodibromomethane	129	7.945	7.945	0.0	88	144095	4.70	
85 Ethylene Dibromide	107	8.064	8.064	0.0	96	149351	4.93	
87 Chlorobenzene	112	8.503	8.503	-0.001	95	497864	4.77	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	80	168420	4.81	
89 Ethylbenzene	106	8.586	8.586	0.0	99	255857	4.77	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	99	654563	9.74	
91 o-Xylene	106	9.084	9.084	0.0	91	288263	4.56	
92 Styrene	104	9.095	9.096	-0.001	93	481023	4.68	
93 Bromoform	173	9.297	9.297	0.0	95	84166	4.43	
95 Isopropylbenzene	105	9.427	9.428	-0.001	96	702832	4.42	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	84	166579	5.34	
98 Bromobenzene	156	9.748	9.748	0.0	75	203254	5.27	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	74	59260	5.25	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	68	46059	5.25	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	197183	5.22	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	168265	5.18	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	86	563827	5.07	
104 4-Chlorotoluene	126	10.032	10.032	0.0	97	186010	5.36	
105 tert-Butylbenzene	119	10.317	10.317	0.0	91	551861	5.39	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	552663	4.93	
107 sec-Butylbenzene	105	10.530	10.531	0.0	94	652213	4.92	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	90	353492	4.92	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	91	554399	4.72	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	93	363906	4.86	
112 n-Butylbenzene	91	11.076	11.076	0.0	95	423614	4.39	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	318720	4.67	

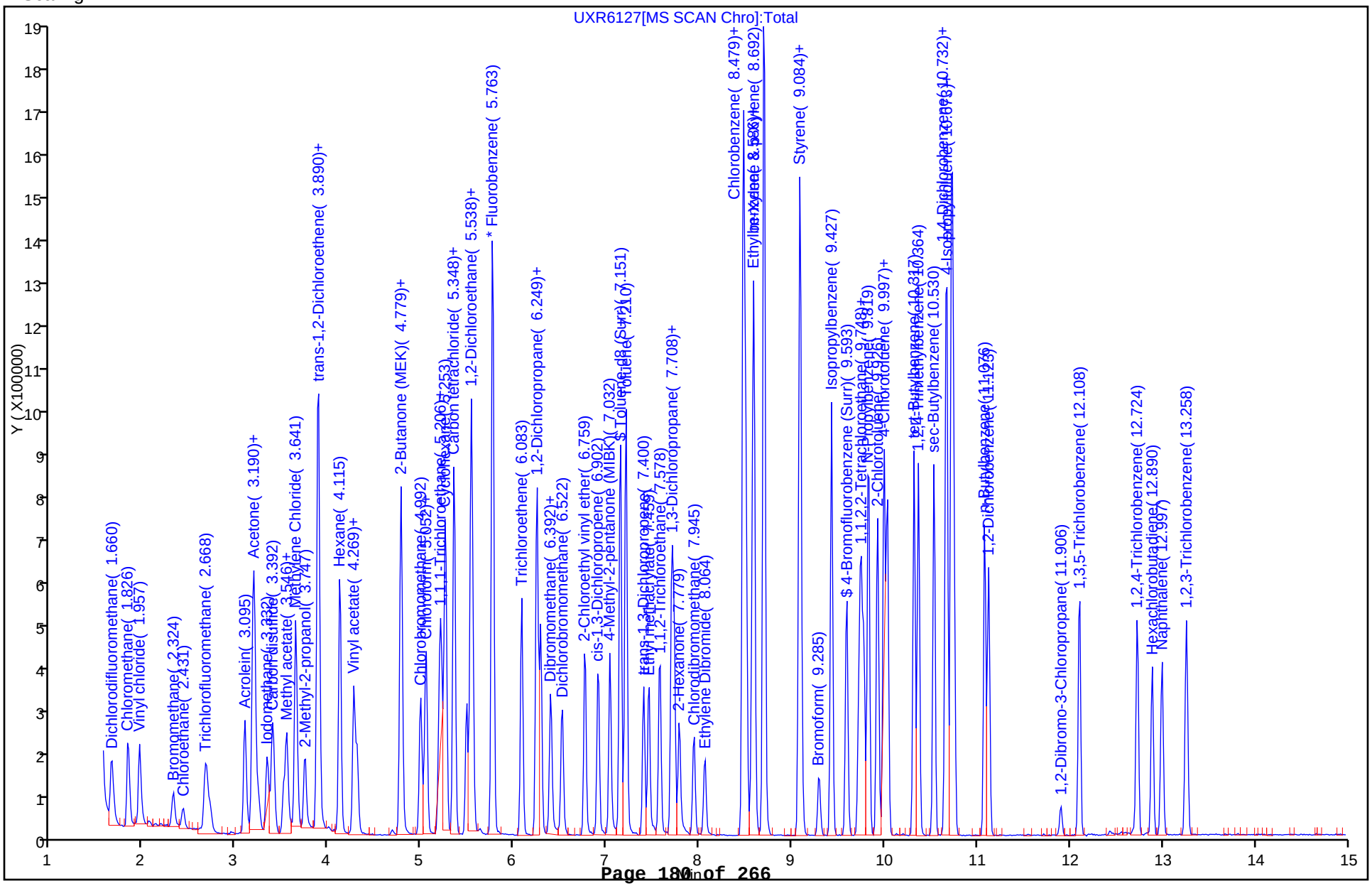
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	59	23075	4.59	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	96	231091	4.28	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	211526	4.21	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	86	108386	4.13	
118 Naphthalene	128	12.997	12.997	0.0	100	405043	4.39	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	217214	4.67	
S 121 Trihalomethanes, Total	1				0		18.8	
S 122 1,2-Dichloroethene, Total	96				0		9.70	
S 123 1,3-Dichloropropene, Total	75				0		9.18	
S 124 Xylenes, Total	106				0		14.3	

Report Date: 03-Jul-2013 08:41:11 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6127.D		
Injection Date:	02-Jul-2013 10:53:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	5
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6128.D		
Lims ID:	STD8260 L2	Client ID:	
Inject. Date:	02-Jul-2013 11:15:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	240-0021310-006		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	5
Lims Batch ID:	92260	Lims Sample ID:	6
Sublist:	chrom-8260_17*sub1		
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:12	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1298764	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	1069222	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	93	660433	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	54	62358	1.87	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.491	-0.001	0	87630	1.94	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	92	262927	1.82	
$ 9 4-Bromofluorobenzene (Surr)	95	9.593	9.594	-0.001	93	109425	2.03	
14 Dichlorodifluoromethane	85	1.648	1.660	-0.012	79	82616	1.99	
15 Chloromethane	50	1.826	1.826	0.0	88	117474	2.05	
17 Vinyl chloride	62	1.957	1.957	0.0	95	93225	1.92	
18 Bromomethane	94	2.312	2.313	-0.001	88	31737	2.12	
19 Chloroethane	64	2.419	2.419	0.0	88	30095	2.05	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	78	81564	1.92	
24 Acrolein	56	3.095	3.095	0.0	96	117943	19.0	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	94	72470	2.02	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.202	-0.012	79	60931	1.99	
27 Acetone	43	3.237	3.238	-0.001	89	59045	4.06	
28 Iodomethane	142	3.332	3.332	0.0	97	103227	1.96	
29 Carbon disulfide	76	3.391	3.392	-0.001	98	192820	1.92	
30 Acetonitrile	41	3.522	3.510	0.012	97	103646	22.2	
32 Methyl acetate	43	3.546	3.546	0.0	97	124233	4.02	
33 Methylene Chloride	84	3.640	3.641	-0.001	93	130503	1.98	
34 2-Methyl-2-propanol	59	3.735	3.747	-0.012	95	105034	44.0	
36 Acrylonitrile	53	3.878	3.878	0.0	45	61471	3.83	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	91	186495	1.93	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	92	76186	1.95	
38 Hexane	86	4.115	4.115	0.0	93	17760	1.82	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	82	134709	1.99	
40 Vinyl acetate	86	4.305	4.305	0.0	97	10898	1.81	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	70	80737	2.03	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	59	70757	1.92	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
46 2-Butanone (MEK)	43	4.791	4.791	0.0	89	68048	3.98	
50 Chlorobromomethane	128	4.992	4.993	-0.001	76	38167	2.00	
51 Tetrahydrofuran	42	5.028	5.028	0.0	88	21930	2.11	
52 Chloroform	83	5.052	5.052	0.0	93	129426	1.97	
53 1,1,1-Trichloroethane	97	5.206	5.218	-0.012	87	102909	1.95	
54 Cyclohexane	56	5.253	5.253	0.0	92	140891	1.86	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	91	95164	1.89	
55 Carbon tetrachloride	117	5.348	5.348	0.0	81	93958	1.92	
58 Benzene	78	5.538	5.538	0.0	96	301388	1.98	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	83	107436	1.97	
63 Trichloroethene	130	6.083	6.084	-0.001	94	77559	2.00	
65 Methylcyclohexane	83	6.249	6.250	-0.001	91	115715	1.85	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	88	72737	1.92	
69 Dibromomethane	93	6.392	6.392	0.0	86	39464	1.99	
68 1,4-Dioxane	88	6.392	6.392	0.0	64	39306	118.9	
70 Dichlorobromomethane	83	6.522	6.522	0.0	88	85876	1.93	
72 2-Chloroethyl vinyl ether	63	6.759	6.760	-0.001	88	72979	3.53	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	81	90338	1.80	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	95	132225	3.96	
75 Toluene	91	7.210	7.210	0.0	96	317715	1.95	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	89	77451	1.77	
77 Ethyl methacrylate	69	7.447	7.459	-0.012	86	77347	1.83	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	84	62369	1.95	
79 Tetrachloroethene	164	7.708	7.708	0.0	89	73760	2.02	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	90	115546	1.98	
82 2-Hexanone	43	7.779	7.779	0.0	94	85924	3.63	
84 Chlorodibromomethane	129	7.945	7.945	0.0	84	59167	1.81	
85 Ethylene Dibromide	107	8.064	8.064	0.0	87	62723	1.94	
87 Chlorobenzene	112	8.502	8.503	-0.001	93	229587	2.06	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	79	73886	1.98	
89 Ethylbenzene	106	8.585	8.586	-0.001	98	115415	2.02	
90 m-Xylene & p-Xylene	106	8.704	8.692	0.012	99	279107	3.89	
91 o-Xylene	106	9.084	9.084	0.0	92	138378	2.05	
92 Styrene	104	9.095	9.096	-0.001	94	216174	1.97	
93 Bromoform	173	9.297	9.297	0.0	90	39658	1.96	
95 Isopropylbenzene	105	9.427	9.428	-0.001	95	343391	2.03	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	86	91700	2.08	
98 Bromobenzene	156	9.748	9.748	0.0	86	105921	1.94	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	59	31185	1.95	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	42	21212	1.71	
101 N-Propylbenzene	120	9.831	9.831	0.0	95	101075	1.89	
102 2-Chlorotoluene	126	9.926	9.926	0.0	94	85337	1.86	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	81	306757	1.95	
104 4-Chlorotoluene	126	10.032	10.032	0.0	96	94751	1.93	
105 tert-Butylbenzene	119	10.317	10.317	0.0	81	273520	1.89	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	74	312474	1.97	
107 sec-Butylbenzene	105	10.530	10.531	0.0	92	378796	2.02	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	96	215589	2.12	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	86	333744	2.01	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	84	222756	2.10	
112 n-Butylbenzene	91	11.076	11.076	0.0	96	274289	2.01	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	96	209819	2.17	

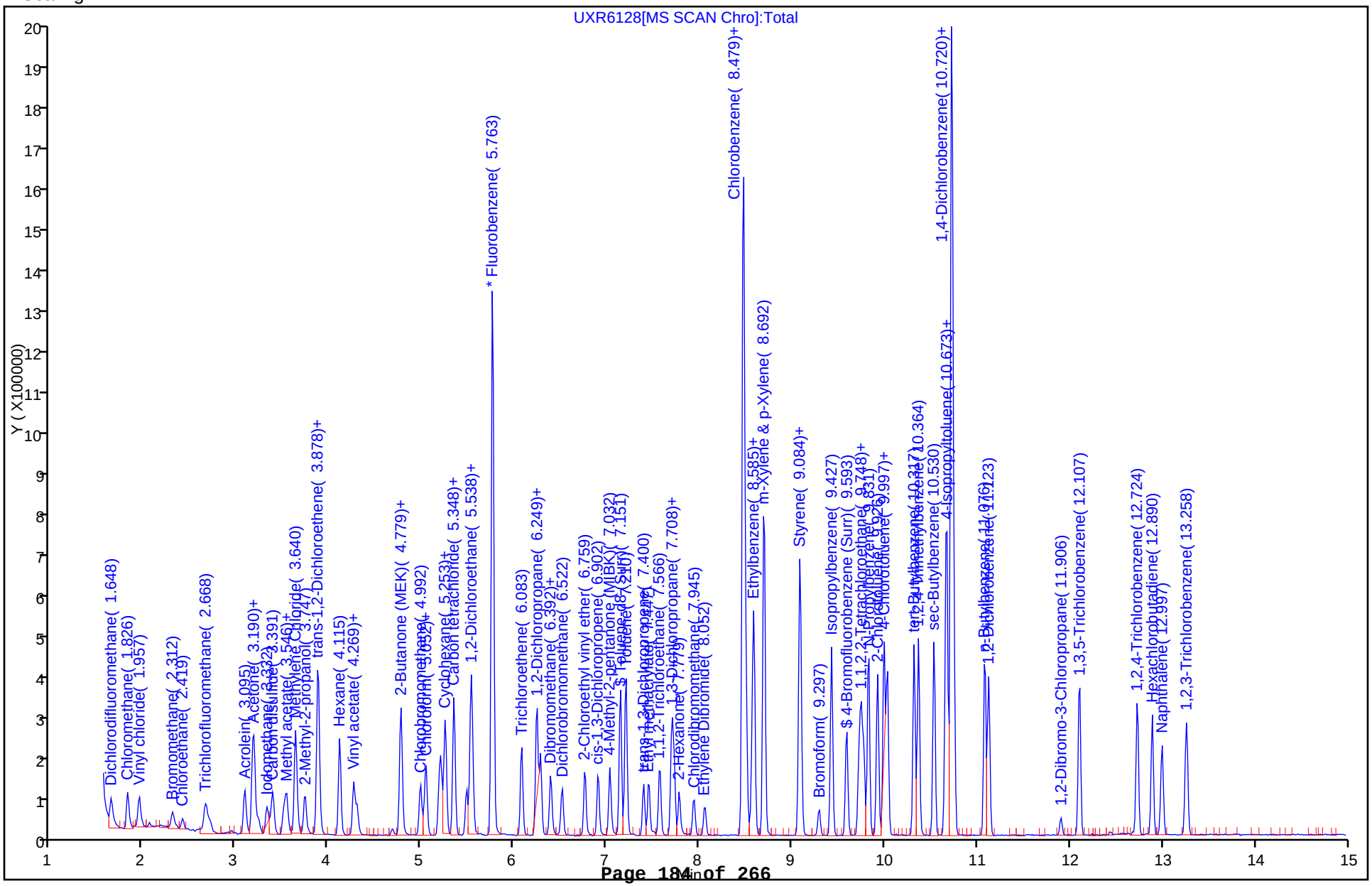
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	51	14975	2.10	
115 1,3,5-Trichlorobenzene	180	12.107	12.108	-0.001	95	156299	2.05	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	92	138488	2.25	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	86	76414	2.16	
118 Naphthalene	128	12.997	12.997	0.0	100	235373	1.81	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	97	130683	1.87	
S 121 Trihalomethanes, Total	1				0		7.66	
S 122 1,2-Dichloroethene, Total	96				0		3.98	
S 123 1,3-Dichloropropene, Total	75				0		3.56	
S 124 Xylenes, Total	106				0		5.95	

Report Date: 03-Jul-2013 08:41:12 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6128.D		
Injection Date:	02-Jul-2013 11:15:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	6
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Lims ID:	STD8260 L1	Client ID:	
Inject. Date:	02-Jul-2013 11:37:30	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	1
Sample ID:	240-0021310-007		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	6
Lims Batch ID:	92260	Lims Sample ID:	7
Sublist:	chrom-8260_17*sub1		
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:13	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		

First Level Reviewer: quayler Date: 02-Jul-2013 12:05:36

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1274832	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	1013848	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	577975	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	49	16382	0.5012	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.491	0.0	0	23410	0.5292	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	77	66835	0.4889	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	76	25560	0.4991	
14 Dichlorodifluoromethane	85	1.660	1.660	0.0	56	20544	0.5033	
15 Chloromethane	50	1.826	1.826	0.0	84	28967	0.5144	
17 Vinyl chloride	62	1.957	1.957	0.0	70	26145	0.5482	
18 Bromomethane	94	2.312	2.313	-0.001	76	7839	0.5323	
19 Chloroethane	64	2.419	2.419	0.0	44	7199	0.4987	
21 Trichlorofluoromethane	101	2.680	2.668	0.012	73	21804	0.5236	
24 Acrolein	56	3.095	3.095	0.0	77	32580	5.34	
25 1,1-Dichloroethene	96	3.190	3.178	0.012	79	16389	0.4652	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.202	0.0	61	15145	0.5038	
27 Acetone	43	3.249	3.238	0.011	86	22229	1.01	
28 Iodomethane	142	3.344	3.332	0.012	83	22296	0.4305	
29 Carbon disulfide	76	3.392	3.392	0.0	94	45869	0.4657	
30 Acetonitrile	41	3.522	3.510	0.012	97	29096	5.51	
32 Methyl acetate	43	3.546	3.546	0.0	95	33387	1.10	
33 Methylene Chloride	84	3.641	3.641	0.0	95	72277	0.5339	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	89	25544	10.9	
36 Acrylonitrile	53	3.878	3.878	0.0	38	17079	1.08	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	88	45991	0.4837	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	60	18998	0.4949	
38 Hexane	86	4.127	4.115	0.012	87	4124	0.4313	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	59	29911	0.4495	
40 Vinyl acetate	86	4.317	4.305	0.012	88	2631	0.4445	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	63	18216	0.4675	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	52	16513	0.4569	
46 2-Butanone (MEK)	43	4.791	4.791	0.0	86	18929	1.13	
50 Chlorobromomethane	128	4.992	4.993	-0.001	73	8909	0.4761	
51 Tetrahydrofuran	42	5.028	5.028	0.0	63	4604	0.4509	
52 Chloroform	83	5.052	5.052	0.0	72	30925	0.4792	
53 1,1,1-Trichloroethane	97	5.218	5.218	0.0	79	23523	0.4532	
54 Cyclohexane	56	5.253	5.253	0.0	87	31148	0.4193	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	80	22210	0.4503	
55 Carbon tetrachloride	117	5.360	5.348	0.012	80	21790	0.4532	
58 Benzene	78	5.538	5.538	0.0	96	75840	0.5080	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	67	25052	0.4677	
63 Trichloroethene	130	6.083	6.084	-0.001	79	17199	0.4529	
65 Methylcyclohexane	83	6.249	6.250	-0.001	83	27504	0.4469	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	74	18245	0.4900	
69 Dibromomethane	93	6.392	6.392	0.0	80	8894	0.4563	
68 1,4-Dioxane	88	6.404	6.392	0.012	32	7422	22.9	
70 Dichlorobromomethane	83	6.522	6.522	0.0	73	18409	0.4211	
72 2-Chloroethyl vinyl ether	63	6.771	6.760	0.011	73	17906	0.8832	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	57	19857	0.4021	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	87	32542	0.99	
75 Toluene	91	7.210	7.210	0.0	93	66006	0.4275	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	63	15687	0.6230	
77 Ethyl methacrylate	69	7.459	7.459	0.0	67	14562	0.5851	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	66	13279	0.4382	
79 Tetrachloroethene	164	7.708	7.708	0.0	85	16478	0.4749	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	66	25853	0.4670	
82 2-Hexanone	43	7.779	7.779	0.0	88	21631	0.9633	
84 Chlorodibromomethane	129	7.945	7.945	0.0	44	13543	0.4370	
85 Ethylene Dibromide	107	8.052	8.064	-0.012	48	13779	0.4502	
87 Chlorobenzene	112	8.503	8.503	0.0	88	52398	0.4964	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	65	16346	0.4613	
89 Ethylbenzene	106	8.586	8.586	0.0	91	23277	0.4293	
90 m-Xylene & p-Xylene	106	8.704	8.692	0.012	99	55994	0.8238	
91 o-Xylene	106	9.084	9.084	0.0	83	28368	0.4440	
92 Styrene	104	9.096	9.096	0.0	79	39702	0.3820	
93 Bromoform	173	9.285	9.297	-0.012	50	8044	0.4184	
95 Isopropylbenzene	105	9.428	9.428	0.0	86	65775	0.4094	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	66	17191	0.4455	
98 Bromobenzene	156	9.748	9.748	0.0	78	21410	0.4484	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	39	7177	0.5140	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	18	4105	0.3781	
101 N-Propylbenzene	120	9.831	9.831	0.0	89	17950	0.3838	
102 2-Chlorotoluene	126	9.926	9.926	0.0	87	16662	0.4140	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	57	50077	0.3640	
104 4-Chlorotoluene	126	10.032	10.032	0.0	84	16790	0.3908	
105 tert-Butylbenzene	119	10.317	10.317	0.0	69	50761	0.4006	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	56	51843	0.3732	
107 sec-Butylbenzene	105	10.530	10.531	0.0	81	65037	0.3963	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	91	43395	0.4876	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	72	57566	0.3962	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	70	48012	0.5180	

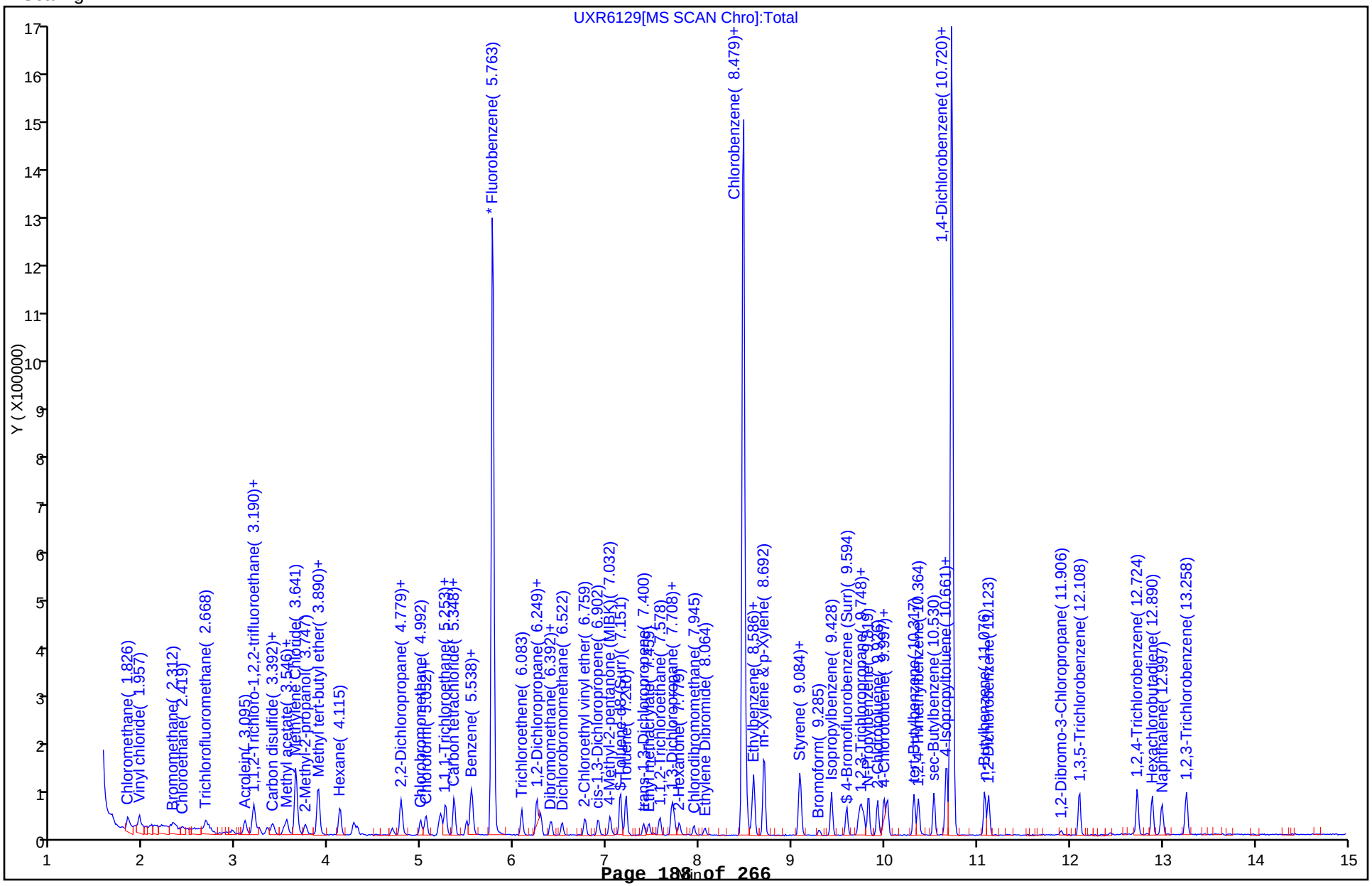
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
112 n-Butylbenzene	91	11.076	11.076	0.0	86	56359	0.4714	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	86	44982	0.5321	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	1	3130	0.5025	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	79	41113	0.6149	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	73	40436	1.16	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	66	24786	0.9580	
118 Naphthalene	128	12.997	12.997	0.0	97	67827	0.5944	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	81	43490	0.5840	
S 121 Trihalomethanes, Total	1				0		1.76	
S 122 1,2-Dichloroethene, Total	96				0		0.9624	
S 123 1,3-Dichloropropene, Total	75				0		1.03	
S 124 Xylenes, Total	106				0		1.27	

Report Date: 03-Jul-2013 08:41:13 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Injection Date:	02-Jul-2013 11:37:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	7
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: ICV 240-92260/8 Calibration Date: 07/02/2013 12:00

Instrument ID: A3UX17 Calib Start Date: 05/07/2013 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/07/2013 16:05

Lab File ID: UXR6130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2647	0.2981		2.00	0.0100	12.6	50.0
Isopropyl ether	Ave	0.2531	0.2478		10.0	0.0100	-2.1	50.0
Isobutyl alcohol	Ave	0.0118	0.0106		50.0	0.500	-10.2	50.0
Cyclohexanone	Ave	0.1188	0.0201		20.0	0.200	-83.1*	50.0
1,2,3-Trimethylbenzene	Ave	2.525	2.247		0.00890	0.0100	-11.0	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6130.D
Lims ID: ICV
Client ID:
Inject. Date: 02-Jul-2013 12:00:30
Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: 240-0021310-008
Misc. Info.:
Operator: 1904
Instrument ID: A3UX17
Purge Vol: 5.000 mL
ALS Bottle#: 7
Lims Batch ID: 92260
Lims Sample ID: 8
Sublist:
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m
Last Update: 03-Jul-2013 08:41:13
Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard
Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE
ID Type: Deconvolution ID
Column Type: DB-624
Column Dia: 0.18 mm
Process Host: XAWRK026

First Level Reviewer: quayler
Date: 02-Jul-2013 12:23:29

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1263222	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	971310	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	92	471339	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	66	263358	8.13	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.491	-0.001	0	345759	7.89	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	1086683	8.30	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.594	-0.012	91	381681	7.78	
14 Dichlorodifluoromethane	85	1.660	1.660	0.0	97	373472	9.23	
15 Chloromethane	50	1.826	1.826	0.0	89	527295	9.45	
17 Vinyl chloride	62	1.957	1.957	0.0	83	456600	9.66	
18 Bromomethane	94	2.312	2.313	-0.001	89	125881	8.63	
19 Chloroethane	64	2.419	2.419	0.0	94	119377	8.35	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	87	386109	9.36	
22 Ethyl ether	59	2.953	2.953	0.0	94	376509	11.3	
24 Acrolein	56	3.095	3.095	0.0	89	153457	25.4	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	89	357600	10.2	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.202	0.0	83	313002	10.5	
27 Acetone	43	3.237	3.238	-0.001	99	199562	16.3	
28 Iodomethane	142	3.332	3.332	0.0	98	508580	9.91	
29 Carbon disulfide	76	3.392	3.392	0.0	99	1022606	10.5	
30 Acetonitrile	41	3.522	3.510	0.012	98	111903	24.8	
32 Methyl acetate	43	3.546	3.546	0.0	98	303309	10.1	
33 Methylene Chloride	84	3.641	3.641	0.0	94	417257	9.60	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	96	386723	166.7	
36 Acrylonitrile	53	3.878	3.878	0.0	97	458311	29.4	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	935882	9.93	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	93	379574	9.98	
38 Hexane	86	4.115	4.115	0.0	93	103739	10.9	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	86	672725	10.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
41 Isopropyl ether	87	4.305	4.305	0.0	78	313028	9.79	
40 Vinyl acetate	86	4.305	4.305	0.0	94	64826	11.1	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	70	402360	10.4	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	58	336535	9.40	
46 2-Butanone (MEK)	43	4.791	4.791	0.0	94	301121	18.1	
50 Chlorobromomethane	128	4.992	4.993	-0.001	93	185007	9.98	
51 Tetrahydrofuran	42	5.028	5.028	0.0	85	98871	9.77	
52 Chloroform	83	5.052	5.052	0.0	71	640302	10.0	
53 1,1,1-Trichloroethane	97	5.218	5.218	0.0	91	518072	10.1	
54 Cyclohexane	56	5.253	5.253	0.0	92	738708	10.0	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	94	487930	9.98	
55 Carbon tetrachloride	117	5.348	5.348	0.0	79	467992	9.82	
57 Isobutyl alcohol	41	5.431	5.419	0.012	92	516548	449.0	
58 Benzene	78	5.538	5.538	0.0	97	1474894	9.97	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	547139	10.3	
63 Trichloroethene	130	6.083	6.084	-0.001	93	382914	10.2	
65 Methylcyclohexane	83	6.249	6.250	-0.001	92	578069	9.48	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	90	369602	10.0	
69 Dibromomethane	93	6.392	6.392	0.0	87	201731	10.4	
70 Dichlorobromomethane	83	6.522	6.522	0.0	93	451233	10.4	
72 2-Chloroethyl vinyl ether	63	6.759	6.760	-0.001	91	192900	9.60	
73 cis-1,3-Dichloropropene	75	6.914	6.902	0.012	91	486173	9.93	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	97	644415	19.9	
75 Toluene	91	7.210	7.210	0.0	98	1511740	10.2	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	416871	8.92	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	86	308381	10.6	
79 Tetrachloroethene	164	7.708	7.708	0.0	93	321391	9.67	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	537520	10.1	
82 2-Hexanone	43	7.779	7.779	0.0	96	416706	19.4	
84 Chlorodibromomethane	129	7.945	7.945	0.0	89	299706	10.1	
85 Ethylene Dibromide	107	8.064	8.064	0.0	98	293763	10.0	
87 Chlorobenzene	112	8.503	8.503	0.0	94	968549	9.58	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	317211	9.34	
89 Ethylbenzene	106	8.586	8.586	0.0	98	496995	9.57	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1257180	19.3	
91 o-Xylene	106	9.084	9.084	0.0	91	573807	9.37	
92 Styrene	104	9.095	9.096	-0.001	94	978381	9.83	
93 Bromoform	173	9.297	9.297	0.0	94	177623	9.64	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	1384519	9.00	
96 Cyclohexanone	55	9.546	9.546	0.0	91	189605	33.9	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	85	322252	10.2	
98 Bromobenzene	156	9.748	9.748	0.0	75	399112	10.3	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	69	114963	10.1	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	74	193166	21.8	E
101 N-Propylbenzene	120	9.831	9.831	0.0	95	407538	10.7	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	327488	9.98	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	79	1119362	9.98	
104 4-Chlorotoluene	126	10.032	10.032	0.0	97	354534	10.1	
105 tert-Butylbenzene	119	10.317	10.317	0.0	90	955036	9.24	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1120522	9.89	
107 sec-Butylbenzene	105	10.530	10.531	0.0	94	1252478	9.36	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	666217	9.18	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
109 4-Isopropyltoluene	119	10.673	10.673	0.0	94	1109672	9.36	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	95	666565	8.82	
111 1,2,3-Trimethylbenzene	105	10.791	10.791	0.0	88	1059123	8.90	
112 n-Butylbenzene	91	11.076	11.076	0.0	95	841396	8.63	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	593950	8.62	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	70	40126	7.90	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	285769	5.49	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	92	143529	5.39	
118 Naphthalene	128	12.997	12.997	0.0	99	483400	5.19	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	239290	5.12	
S 121 Trihalomethanes, Total	1				0		40.2	
S 122 1,2-Dichloroethene, Total	96				0		20.4	
S 124 Xylenes, Total	106				0		28.7	

QC Flag Legend

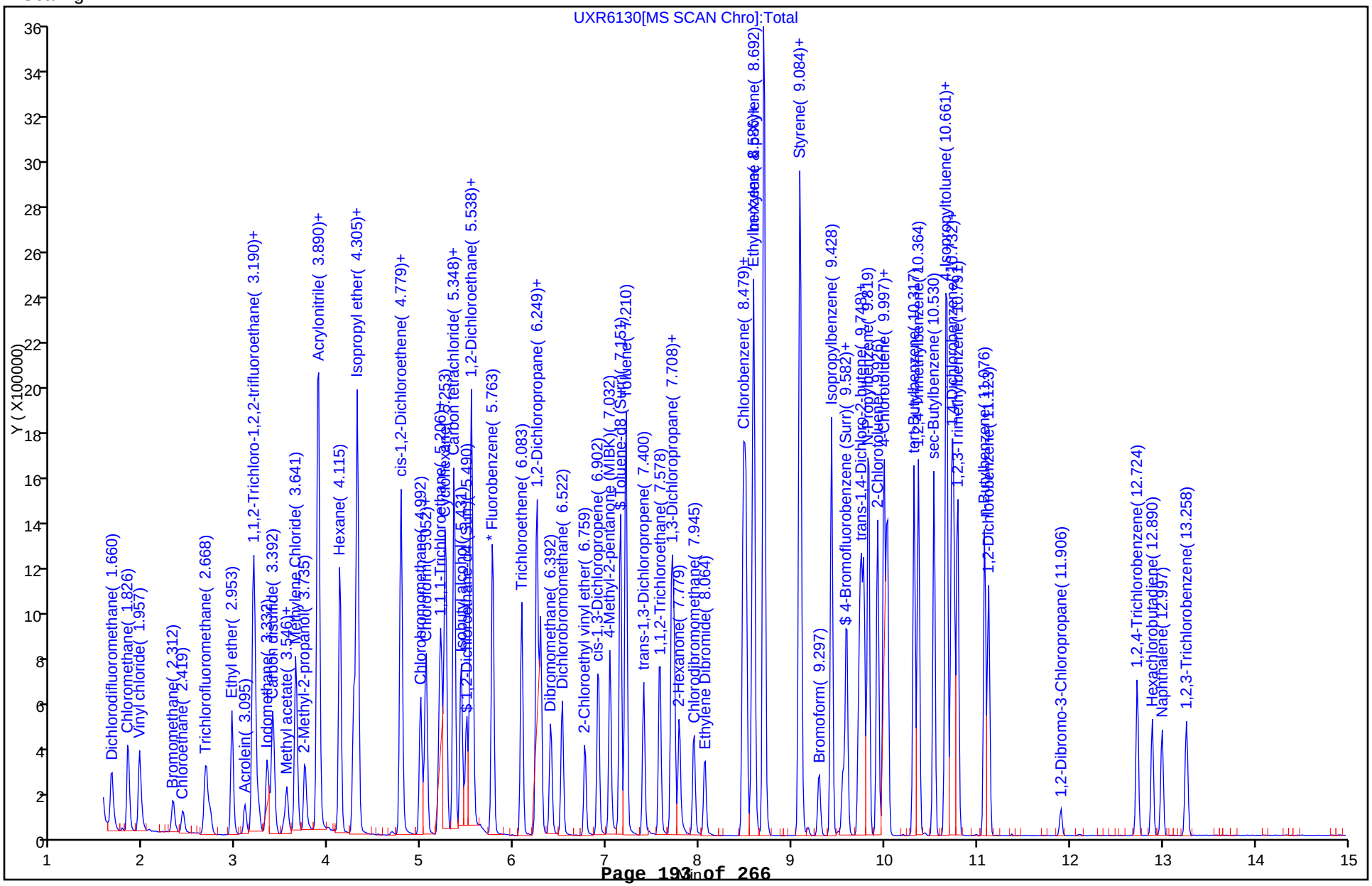
Processing Flags
E - Exceeded Maximum Amount

Report Date: 03-Jul-2013 08:41:14 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6130.D		
Injection Date:	02-Jul-2013 12:00:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	8
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: ICV 240-92260/8 Calibration Date: 07/02/2013 12:00

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3202	0.2957		1.00	0.0100	-7.7	50.0
Chloromethane	Ave	0.4418	0.4174	0.1000	1.00	0.0100	-5.5	50.0
Vinyl chloride	Ave	0.3741	0.3615		1.00	0.0100	-3.4	20.0
Bromomethane	Ave	0.1155	0.0997		1.00	0.0100	-13.7	50.0
Chloroethane	Ave	0.1132	0.0945		1.00	0.0100	-16.5	50.0
Trichlorofluoromethane	Ave	0.3266	0.3057		1.00	0.0100	-6.4	50.0
Acrolein	Ave	0.0479	0.0405		20.0	0.0300	-15.4	50.0
1,1-Dichloroethene	Ave	0.2763	0.2831		1.00	0.0100	2.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2358	0.2478		1.00	0.0100	5.1	50.0
Acetone	Lin1		0.0790		10.0	0.0200	-18.6	50.0
Iodomethane	Ave	0.4062	0.4026		1.00	0.0100	-0.9	50.0
Carbon disulfide	Ave	0.7726	0.8095		1.00	0.0100	4.8	50.0
Acetonitrile	Lin1		0.0295		20.0	0.0300	-17.3	50.0
Methyl acetate	Ave	0.2382	0.2401		10.0	0.0100	0.8	50.0
Methylene Chloride	Lin1		0.3303		1.00	0.0100	-4.0	50.0
2-Methyl-2-propanol	Ave	0.0184	0.0153		50.0	0.200	-16.6	50.0
Acrylonitrile	Ave	0.1236	0.1209		20.0	0.0300	-2.1	50.0
Methyl tert-butyl ether	Ave	0.7459	0.7409		1.00	0.0100	-0.7	50.0
trans-1,2-Dichloroethene	Ave	0.3011	0.3005		1.00	0.0100	-0.2	50.0
Hexane	Ave	0.0750	0.0821		1.00	0.0100	9.5	20.0
1,1-Dichloroethane	Ave	0.5220	0.5326	0.1000	1.00	0.0100	2.0	50.0
Vinyl acetate	Ave	0.0464	0.0513		2.00	0.0100	10.5	50.0
2,2-Dichloropropane	Ave	0.2835	0.2664		1.00	0.0100	-6.0	50.0
cis-1,2-Dichloroethene	Ave	0.3056	0.3185		1.00	0.0100	4.2	50.0
2-Butanone (MEK)	Ave	0.1316	0.1192		10.0	0.0200	-9.4	50.0
Chlorobromomethane	Ave	0.1468	0.1465		1.00	0.0100	-0.2	50.0
Tetrahydrofuran	Ave	0.0801	0.0783		5.00	0.0100	-2.3	50.0
Chloroform	Ave	0.5063	0.5069		1.00	0.0100	0.1	20.0
1,1,1-Trichloroethane	Ave	0.4071	0.4101		1.00	0.0100	0.7	50.0
Cyclohexane	Ave	0.5827	0.5848		1.00	0.0100	0.4	50.0
1,1-Dichloropropene	Ave	0.3869	0.3863		1.00	0.0100	-0.2	50.0
Carbon tetrachloride	Ave	0.3771	0.3705		1.00	0.0100	-1.8	50.0
Benzene	Ave	1.171	1.168		1.00	0.0100	-0.3	50.0
1,2-Dichloroethane	Ave	0.4201	0.4331		1.00	0.0100	3.1	50.0
Trichloroethene	Ave	0.2979	0.3031		1.00	0.0100	1.8	50.0
Methylcyclohexane	Ave	0.4828	0.4576		1.00	0.0100	-5.2	50.0
1,2-Dichloropropane	Ave	0.2921	0.2926		1.00	0.0100	0.2	20.0
Dibromomethane	Ave	0.1529	0.1597		1.00	0.0100	4.5	50.0
Bromodichloromethane	Ave	0.3429	0.3572		1.00	0.0100	4.2	50.0
2-Chloroethyl vinyl ether	Ave	0.1590	0.1527		10.0	0.0100	-4.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: ICV 240-92260/8 Calibration Date: 07/02/2013 12:00

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.3874	0.3849		1.00	0.0100	-0.7	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2569	0.2551		10.0	0.0200	-0.7	50.0
Toluene	Ave	1.523	1.556		1.00	0.0100	2.2	20.0
trans-1,3-Dichloropropene	Lin1		0.4292		1.00	0.0100	-10.8	50.0
1,1,2-Trichloroethane	Ave	0.2989	0.3175		1.00	0.0100	6.2	50.0
Tetrachloroethene	Ave	0.3422	0.3309		1.00	0.0100	-3.3	50.0
1,3-Dichloropropane	Ave	0.5460	0.5534		1.00	0.0100	1.4	50.0
2-Hexanone	Ave	0.2215	0.2145		10.0	0.0200	-3.1	50.0
Dibromochloromethane	Ave	0.3056	0.3086		1.00	0.0100	1.0	50.0
1,2-Dibromoethane	Ave	0.3019	0.3024		1.00	0.0100	0.2	50.0
Chlorobenzene	Ave	1.041	0.997	0.3000	1.00	0.0100	-4.2	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3495	0.3266		1.00	0.0100	-6.6	50.0
Ethylbenzene	Ave	0.5348	0.5117		1.00	0.0100	-4.3	20.0
m-Xylene & p-Xylene	Ave	0.6704	0.6472		2.00	0.0200	-3.5	50.0
o-Xylene	Ave	0.6303	0.5908		1.00	0.0100	-6.3	50.0
Styrene	Ave	1.025	1.007		1.00	0.0100	-1.7	50.0
Bromoform	Ave	0.1896	0.1829	0.1000	1.00	0.0100	-3.6	50.0
Isopropylbenzene	Ave	1.585	1.425		1.00	0.0100	-10.0	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6677	0.6837	0.3000	1.00	0.0100	2.4	50.0
Bromobenzene	Ave	0.8260	0.8468		1.00	0.0100	2.5	50.0
1,2,3-Trichloropropane	Ave	0.2416	0.2439		1.00	0.0100	1.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1878	0.2049		1.00	0.0200	9.1	50.0
N-Propylbenzene	Ave	0.8092	0.8646		1.00	0.0100	6.8	50.0
2-Chlorotoluene	Ave	0.6963	0.6948		1.00	0.0100	-0.2	50.0
1,3,5-Trimethylbenzene	Ave	2.380	2.375		1.00	0.0100	-0.2	50.0
4-Chlorotoluene	Ave	0.7433	0.7522		1.00	0.0100	1.2	50.0
tert-Butylbenzene	Ave	2.192	2.026		1.00	0.0100	-7.6	50.0
1,2,4-Trimethylbenzene	Ave	2.403	2.377		1.00	0.0100	-1.1	50.0
sec-Butylbenzene	Ave	2.839	2.657		1.00	0.0100	-6.4	50.0
1,3-Dichlorobenzene	Ave	1.540	1.413		1.00	0.0100	-8.2	50.0
4-Isopropyltoluene	Ave	2.514	2.354		1.00	0.0100	-6.4	50.0
1,4-Dichlorobenzene	Ave	1.604	1.414		1.00	0.0100	-11.8	50.0
n-Butylbenzene	Ave	2.069	1.785		1.00	0.0100	-13.7	50.0
1,2-Dichlorobenzene	Ave	1.463	1.260		1.00	0.0100	-13.8	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1078	0.0851		2.00	0.0100	-21.0	50.0
1,2,4-Trichlorobenzene	Qua		0.6063		1.00	0.0100	-45.1	50.0
Hexachlorobutadiene	Qua		0.3045		1.00	0.0100	-46.1	50.0
Naphthalene	Ave	1.974	1.026		1.00	0.0100	-48.1	50.0
1,2,3-Trichlorobenzene	Lin1		0.5077		1.00	0.0100	-48.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2564	0.2340		0.00813	0.00891	-8.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3470	0.3072		0.00789	0.00891	-11.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: ICV 240-92260/8 Calibration Date: 07/02/2013 12:00

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.349	1.256		0.00830	0.00891	-6.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5052	0.4410		0.00778	0.00891	-12.7	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6130.D
Lims ID: ICV
Client ID:
Inject. Date: 02-Jul-2013 12:00:30
Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: 240-0021310-008
Misc. Info.:
Operator: 1904
Instrument ID: A3UX17
Purge Vol: 5.000 mL
ALS Bottle#: 7
Lims Batch ID: 92260
Lims Sample ID: 8
Sublist:
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m
Last Update: 03-Jul-2013 08:41:13
Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard
Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE
ID Type: Deconvolution ID
Column Type: DB-624
Column Dia: 0.18 mm
Process Host: XAWRK026

First Level Reviewer: quayler
Date: 02-Jul-2013 12:23:29

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1263222	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	971310	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	92	471339	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.194	0.0	66	263358	8.13	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.491	-0.001	0	345759	7.89	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	1086683	8.30	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.594	-0.012	91	381681	7.78	
14 Dichlorodifluoromethane	85	1.660	1.660	0.0	97	373472	9.23	
15 Chloromethane	50	1.826	1.826	0.0	89	527295	9.45	
17 Vinyl chloride	62	1.957	1.957	0.0	83	456600	9.66	
18 Bromomethane	94	2.312	2.313	-0.001	89	125881	8.63	
19 Chloroethane	64	2.419	2.419	0.0	94	119377	8.35	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	87	386109	9.36	
22 Ethyl ether	59	2.953	2.953	0.0	94	376509	11.3	
24 Acrolein	56	3.095	3.095	0.0	89	153457	25.4	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	89	357600	10.2	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.202	0.0	83	313002	10.5	
27 Acetone	43	3.237	3.238	-0.001	99	199562	16.3	
28 Iodomethane	142	3.332	3.332	0.0	98	508580	9.91	
29 Carbon disulfide	76	3.392	3.392	0.0	99	1022606	10.5	
30 Acetonitrile	41	3.522	3.510	0.012	98	111903	24.8	
32 Methyl acetate	43	3.546	3.546	0.0	98	303309	10.1	
33 Methylene Chloride	84	3.641	3.641	0.0	94	417257	9.60	
34 2-Methyl-2-propanol	59	3.747	3.747	0.0	96	386723	166.7	
36 Acrylonitrile	53	3.878	3.878	0.0	97	458311	29.4	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	935882	9.93	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	93	379574	9.98	
38 Hexane	86	4.115	4.115	0.0	93	103739	10.9	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	86	672725	10.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
41 Isopropyl ether	87	4.305	4.305	0.0	78	313028	9.79	
40 Vinyl acetate	86	4.305	4.305	0.0	94	64826	11.1	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	70	402360	10.4	
44 2,2-Dichloropropane	77	4.779	4.779	0.0	58	336535	9.40	
46 2-Butanone (MEK)	43	4.791	4.791	0.0	94	301121	18.1	
50 Chlorobromomethane	128	4.992	4.993	-0.001	93	185007	9.98	
51 Tetrahydrofuran	42	5.028	5.028	0.0	85	98871	9.77	
52 Chloroform	83	5.052	5.052	0.0	71	640302	10.0	
53 1,1,1-Trichloroethane	97	5.218	5.218	0.0	91	518072	10.1	
54 Cyclohexane	56	5.253	5.253	0.0	92	738708	10.0	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	94	487930	9.98	
55 Carbon tetrachloride	117	5.348	5.348	0.0	79	467992	9.82	
57 Isobutyl alcohol	41	5.431	5.419	0.012	92	516548	449.0	
58 Benzene	78	5.538	5.538	0.0	97	1474894	9.97	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	547139	10.3	
63 Trichloroethene	130	6.083	6.084	-0.001	93	382914	10.2	
65 Methylcyclohexane	83	6.249	6.250	-0.001	92	578069	9.48	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	90	369602	10.0	
69 Dibromomethane	93	6.392	6.392	0.0	87	201731	10.4	
70 Dichlorobromomethane	83	6.522	6.522	0.0	93	451233	10.4	
72 2-Chloroethyl vinyl ether	63	6.759	6.760	-0.001	91	192900	9.60	
73 cis-1,3-Dichloropropene	75	6.914	6.902	0.012	91	486173	9.93	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	97	644415	19.9	
75 Toluene	91	7.210	7.210	0.0	98	1511740	10.2	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	416871	8.92	
78 1,1,2-Trichloroethane	97	7.578	7.578	0.0	86	308381	10.6	
79 Tetrachloroethene	164	7.708	7.708	0.0	93	321391	9.67	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	537520	10.1	
82 2-Hexanone	43	7.779	7.779	0.0	96	416706	19.4	
84 Chlorodibromomethane	129	7.945	7.945	0.0	89	299706	10.1	
85 Ethylene Dibromide	107	8.064	8.064	0.0	98	293763	10.0	
87 Chlorobenzene	112	8.503	8.503	0.0	94	968549	9.58	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	317211	9.34	
89 Ethylbenzene	106	8.586	8.586	0.0	98	496995	9.57	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1257180	19.3	
91 o-Xylene	106	9.084	9.084	0.0	91	573807	9.37	
92 Styrene	104	9.095	9.096	-0.001	94	978381	9.83	
93 Bromoform	173	9.297	9.297	0.0	94	177623	9.64	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	1384519	9.00	
96 Cyclohexanone	55	9.546	9.546	0.0	91	189605	33.9	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	85	322252	10.2	
98 Bromobenzene	156	9.748	9.748	0.0	75	399112	10.3	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	69	114963	10.1	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	74	193166	21.8	E
101 N-Propylbenzene	120	9.831	9.831	0.0	95	407538	10.7	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	327488	9.98	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	79	1119362	9.98	
104 4-Chlorotoluene	126	10.032	10.032	0.0	97	354534	10.1	
105 tert-Butylbenzene	119	10.317	10.317	0.0	90	955036	9.24	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1120522	9.89	
107 sec-Butylbenzene	105	10.530	10.531	0.0	94	1252478	9.36	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	666217	9.18	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
109 4-Isopropyltoluene	119	10.673	10.673	0.0	94	1109672	9.36	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	95	666565	8.82	
111 1,2,3-Trimethylbenzene	105	10.791	10.791	0.0	88	1059123	8.90	
112 n-Butylbenzene	91	11.076	11.076	0.0	95	841396	8.63	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	593950	8.62	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	70	40126	7.90	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	285769	5.49	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	92	143529	5.39	
118 Naphthalene	128	12.997	12.997	0.0	99	483400	5.19	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	239290	5.12	
S 121 Trihalomethanes, Total	1				0		40.2	
S 122 1,2-Dichloroethene, Total	96				0		20.4	
S 124 Xylenes, Total	106				0		28.7	

QC Flag Legend

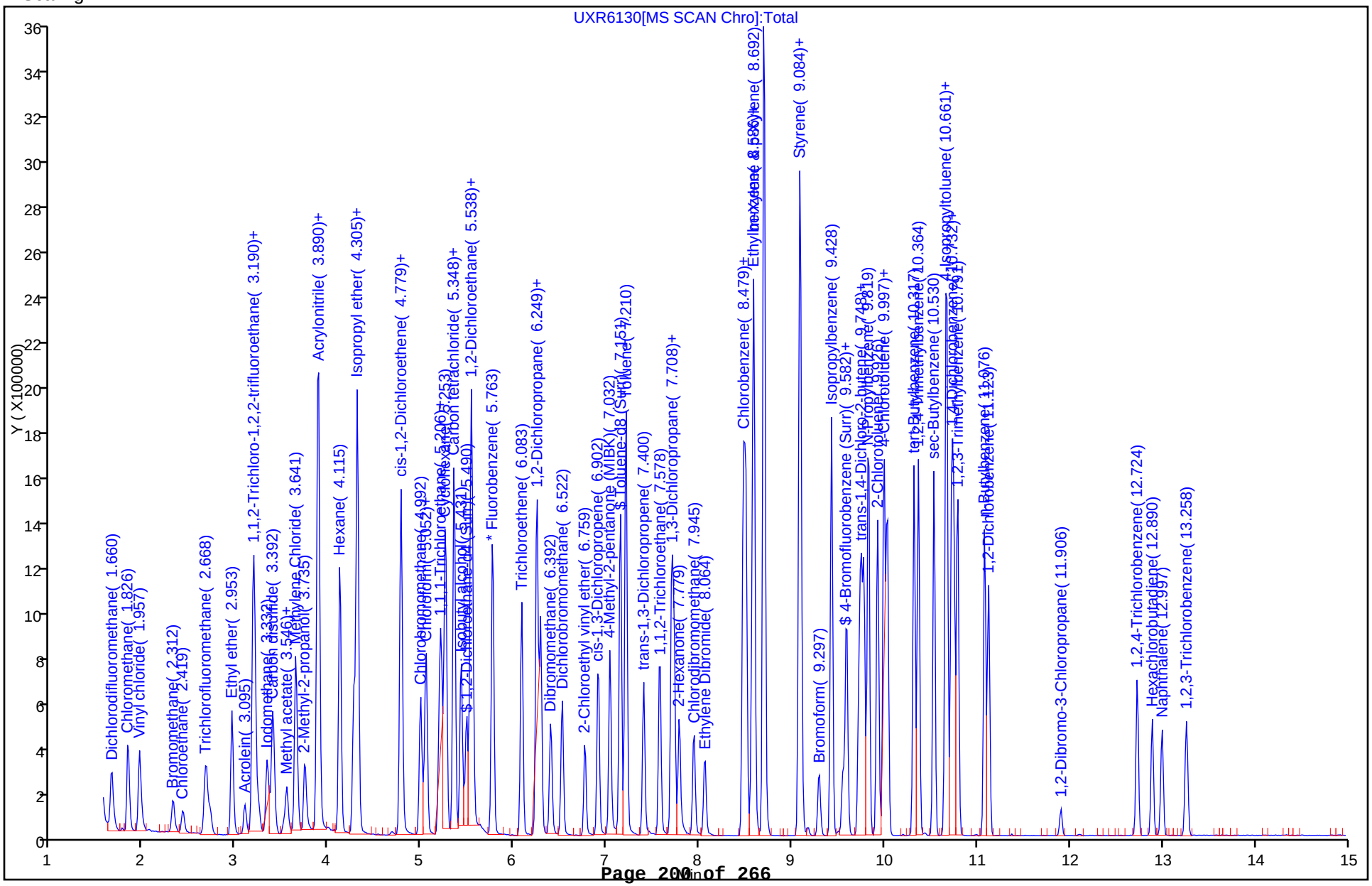
Processing Flags
E - Exceeded Maximum Amount

Report Date: 03-Jul-2013 08:41:14 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6130.D		
Injection Date:	02-Jul-2013 12:00:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	8
Operator ID:	1904	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: CCVIS 240-95231/2 Calibration Date: 07/27/2013 13:10

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6656.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3202	0.3388		1.00	0.0100	5.8	50.0
Chloromethane	Ave	0.4418	0.4871	0.1000	1.00	0.0100	10.3	50.0
Vinyl chloride	Ave	0.3741	0.4096		1.00	0.0100	9.5	20.0
Bromomethane	Ave	0.1155	0.1529		1.00	0.0100	32.4	50.0
Chloroethane	Ave	0.1132	0.1735		1.00	0.0100	53.2*	50.0
Trichlorofluoromethane	Ave	0.3266	0.3776		1.00	0.0100	15.6	50.0
Acrolein	Ave	0.0479	0.0442		20.0	0.100	-7.6	50.0
1,1-Dichloroethene	Ave	0.2763	0.2954		1.00	0.0100	6.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2358	0.2593		1.00	0.0100	9.9	50.0
Acetone	Lin1		0.0904		10.0	0.0200	-6.1	50.0
Iodomethane	Ave	0.4062	0.4827		1.00	0.0100	18.8	50.0
Carbon disulfide	Ave	0.7726	0.8691		1.00	0.0100	12.5	50.0
Acetonitrile	Lin1		0.0385		20.0	0.100	11.9	50.0
Methyl acetate	Ave	0.2382	0.2213		10.0	0.0200	-7.1	50.0
Methylene Chloride	Lin1		0.3694		1.00	0.0100	8.9	50.0
2-Methyl-2-propanol	Ave	0.0184	0.0164		50.0	0.200	-10.9	50.0
Acrylonitrile	Ave	0.1236	0.1160		20.0	0.0200	-6.1	50.0
Methyl tert-butyl ether	Ave	0.7459	0.7039		1.00	0.0100	-5.6	50.0
trans-1,2-Dichloroethene	Ave	0.3011	0.3274		1.00	0.0100	8.7	50.0
Hexane	Ave	0.0750	0.0804		1.00	0.0100	7.2	20.0
1,1-Dichloroethane	Ave	0.5220	0.5510	0.1000	1.00	0.0100	5.6	50.0
Vinyl acetate	Ave	0.0464	0.0405		2.00	0.0100	-12.8	50.0
2,2-Dichloropropane	Ave	0.2835	0.3056		1.00	0.0100	7.8	50.0
2-Butanone (MEK)	Ave	0.1316	0.1195		10.0	0.0200	-9.2	50.0
cis-1,2-Dichloroethene	Ave	0.3056	0.3340		1.00	0.0100	9.3	50.0
Chlorobromomethane	Ave	0.1468	0.1586		1.00	0.0100	8.1	50.0
Tetrahydrofuran	Ave	0.0801	0.0722		5.00	0.0100	-9.9	50.0
Chloroform	Ave	0.5063	0.5302		1.00	0.0100	4.7	20.0
1,1,1-Trichloroethane	Ave	0.4071	0.4285		1.00	0.0100	5.3	50.0
Cyclohexane	Ave	0.5827	0.6228		1.00	0.0100	6.9	50.0
1,1-Dichloropropene	Ave	0.3869	0.4181		1.00	0.0100	8.1	50.0
Carbon tetrachloride	Ave	0.3771	0.4041		1.00	0.0100	7.1	50.0
Benzene	Ave	1.171	1.240		1.00	0.0100	5.9	50.0
1,2-Dichloroethane	Ave	0.4201	0.4219		1.00	0.0100	0.4	50.0
Trichloroethene	Ave	0.2979	0.3277		1.00	0.0100	10.0	50.0
Methylcyclohexane	Ave	0.4828	0.5172		1.00	0.0100	7.1	50.0
1,2-Dichloropropane	Ave	0.2921	0.3098		1.00	0.0100	6.1	20.0
1,4-Dioxane	Ave	0.0025	0.0024		50.0	0.500	-4.4	50.0
Dibromomethane	Ave	0.1529	0.1638		1.00	0.0100	7.1	50.0
Bromodichloromethane	Ave	0.3429	0.3659		1.00	0.0100	6.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: CCVIS 240-95231/2 Calibration Date: 07/27/2013 13:10

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6656.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1590	0.1472		10.0	0.0200	-7.5	50.0
cis-1,3-Dichloropropene	Ave	0.3874	0.4139		1.00	0.0100	6.8	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2569	0.2366		10.0	0.0200	-7.9	50.0
Toluene	Ave	1.523	1.502		1.00	0.0100	-1.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4007		1.00	0.0100	-16.5	50.0
Ethyl methacrylate	Lin1		0.3659		1.00	0.0100	-18.4	50.0
1,1,2-Trichloroethane	Ave	0.2989	0.2912		1.00	0.0100	-2.6	50.0
Tetrachloroethene	Ave	0.3422	0.3445		1.00	0.0100	0.7	50.0
1,3-Dichloropropane	Ave	0.5460	0.5063		1.00	0.0100	-7.3	50.0
2-Hexanone	Ave	0.2215	0.1834		10.0	0.0200	-17.2	50.0
Dibromochloromethane	Ave	0.3056	0.2965		1.00	0.0100	-3.0	50.0
1,2-Dibromoethane	Ave	0.3019	0.2899		1.00	0.0100	-4.0	50.0
Chlorobenzene	Ave	1.041	0.9931	0.3000	1.00	0.0100	-4.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3495	0.3504		1.00	0.0100	0.2	50.0
Ethylbenzene	Ave	0.5348	0.5272		1.00	0.0100	-1.4	20.0
m-Xylene & p-Xylene	Ave	0.6704	0.6822		2.00	0.0200	1.8	50.0
o-Xylene	Ave	0.6303	0.6219		1.00	0.0100	-1.3	50.0
Styrene	Ave	1.025	1.049		1.00	0.0100	2.3	50.0
Bromoform	Ave	0.1896	0.1890	0.1000	1.00	0.0100	-0.3	50.0
Isopropylbenzene	Ave	1.585	1.571		1.00	0.0100	-0.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6677	0.5481	0.3000	1.00	0.0100	-17.9	50.0
Bromobenzene	Ave	0.8260	0.7510		1.00	0.0100	-9.1	50.0
1,2,3-Trichloropropane	Ave	0.2416	0.1913		1.00	0.0100	-20.8	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1878	0.1345		1.00	0.0100	-28.4	50.0
N-Propylbenzene	Ave	0.8092	0.7563		1.00	0.0100	-6.5	50.0
2-Chlorotoluene	Ave	0.6963	0.6601		1.00	0.0100	-5.2	50.0
1,3,5-Trimethylbenzene	Ave	2.380	2.226		1.00	0.0100	-6.5	50.0
4-Chlorotoluene	Ave	0.7433	0.7069		1.00	0.0100	-4.9	50.0
tert-Butylbenzene	Ave	2.192	1.997		1.00	0.0100	-8.9	50.0
1,2,4-Trimethylbenzene	Ave	2.403	2.310		1.00	0.0100	-3.9	50.0
sec-Butylbenzene	Ave	2.839	2.613		1.00	0.0100	-8.0	50.0
1,3-Dichlorobenzene	Ave	1.540	1.395		1.00	0.0100	-9.4	50.0
4-Isopropyltoluene	Ave	2.514	2.359		1.00	0.0100	-6.2	50.0
1,4-Dichlorobenzene	Ave	1.604	1.464		1.00	0.0100	-8.7	50.0
n-Butylbenzene	Ave	2.069	1.851		1.00	0.0100	-10.5	50.0
1,2-Dichlorobenzene	Ave	1.463	1.298		1.00	0.0100	-11.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1078	0.0772		2.00	0.0100	-28.4	50.0
1,3,5-Trichlorobenzene	Ave	1.157	0.9287		1.00	0.0100	-19.7	50.0
1,2,4-Trichlorobenzene	Qua		0.6631		1.00	0.0100	-40.3	50.0
Hexachlorobutadiene	Qua		0.3633		1.00	0.0100	-35.6	50.0
Naphthalene	Ave	1.974	0.8802		1.00	0.0100	-55.4*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: CCVIS 240-95231/2 Calibration Date: 07/27/2013 13:10

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6656.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Lin1		0.4750		1.00	0.0100	-52.2*	50.0
Dibromofluoromethane (Surr)	Ave	0.2564	0.2470		0.00858	0.00891	-3.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3470	0.2881		0.00740	0.00891	-17.0	50.0
Toluene-d8 (Surr)	Ave	1.349	1.154		0.00763	0.00891	-14.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5052	0.4644		0.00819	0.00891	-8.1	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6656.D
Lims ID: CCVIS L4 8260 Client ID:
Inject. Date: 27-Jul-2013 13:10:30 Dil. Factor: 1.0000
Sample Type: CCVIS
Sample ID: 240-0021993-002
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 1
Lims Batch ID: 95231 Lims Sample ID: 2
Sublist: chrom-8260_17*sub1
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m
Last Update: 29-Jul-2013 10:58:50 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK027

First Level Reviewer: williamsla Date: 27-Jul-2013 13:44:14

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1309434	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	1156848	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	92	707519	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.182	5.182	0.0	59	288134	8.58	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.479	5.479	0.0	0	336129	7.40	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	92	1189671	7.63	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	478638	8.19	
14 Dichlorodifluoromethane	85	1.648	1.648	0.0	87	443609	10.6	
15 Chloromethane	50	1.826	1.826	0.0	89	637877	11.0	
17 Vinyl chloride	62	1.945	1.945	0.0	83	536318	10.9	
18 Bromomethane	94	2.312	2.312	0.0	89	200267	13.2	
19 Chloroethane	64	2.419	2.419	0.0	95	227186	15.3	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	86	494448	11.6	
24 Acrolein	56	3.083	3.083	0.0	96	579259	92.4	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	386785	10.7	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.190	0.0	79	339492	11.0	
27 Acetone	43	3.237	3.237	0.0	96	236831	18.8	
28 Iodomethane	142	3.332	3.332	0.0	98	632069	11.9	
29 Carbon disulfide	76	3.392	3.392	0.0	99	1138003	11.2	
30 Acetonitrile	41	3.510	3.510	0.0	100	504258	111.9	
32 Methyl acetate	43	3.534	3.534	0.0	98	579530	18.6	
33 Methylene Chloride	84	3.641	3.641	0.0	93	483745	10.9	
34 2-Methyl-2-propanol	59	3.736	3.736	0.0	96	428639	178.3	
36 Acrylonitrile	53	3.878	3.878	0.0	98	303894	18.8	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	921687	9.44	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	93	428672	10.9	
38 Hexane	86	4.115	4.115	0.0	93	105322	10.7	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	721539	10.6	
40 Vinyl acetate	86	4.305	4.305	0.0	97	53034	8.72	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
44 2,2-Dichloropropane	77	4.767	4.767	0.0	63	400106	10.8	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	70	437308	10.9	
46 2-Butanone (MEK)	43	4.779	4.779	0.0	94	312988	18.2	
50 Chlorobromomethane	128	4.993	4.993	0.0	94	207716	10.8	
51 Tetrahydrofuran	42	5.028	5.028	0.0	96	94510	9.01	
52 Chloroform	83	5.052	5.052	0.0	70	694278	10.5	
53 1,1,1-Trichloroethane	97	5.206	5.206	0.0	91	561134	10.5	
54 Cyclohexane	56	5.253	5.253	0.0	91	815555	10.7	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	93	547469	10.8	
55 Carbon tetrachloride	117	5.348	5.348	0.0	78	529086	10.7	
58 Benzene	78	5.538	5.538	0.0	95	1623770	10.6	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	552434	10.0	
63 Trichloroethene	130	6.083	6.083	0.0	93	429124	11.0	
65 Methylcyclohexane	83	6.250	6.250	0.0	91	677271	10.7	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	91	405600	10.6	
68 1,4-Dioxane	88	6.392	6.392	0.0	60	159430	478.2	
69 Dibromomethane	93	6.392	6.392	0.0	88	214508	10.7	
70 Dichlorobromomethane	83	6.522	6.522	0.0	93	479085	10.7	
72 2-Chloroethyl vinyl ether	63	6.759	6.759	0.0	92	385423	18.5	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	90	541918	10.7	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	98	619635	18.4	
75 Toluene	91	7.210	7.210	0.0	98	1737893	9.86	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	90	463526	8.35	
77 Ethyl methacrylate	69	7.447	7.447	0.0	89	423230	8.16	
78 1,1,2-Trichloroethane	97	7.566	7.566	0.0	86	336886	9.74	
79 Tetrachloroethene	164	7.696	7.696	0.0	92	398562	10.1	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	91	585733	9.27	
82 2-Hexanone	43	7.779	7.779	0.0	96	424265	16.6	
84 Chlorodibromomethane	129	7.945	7.945	0.0	89	342966	9.70	
85 Ethylene Dibromide	107	8.052	8.052	0.0	97	335374	9.60	
87 Chlorobenzene	112	8.503	8.503	0.0	93	1148813	9.54	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	405313	10.0	
89 Ethylbenzene	106	8.586	8.586	0.0	98	609864	9.86	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1578281	20.4	
91 o-Xylene	106	9.084	9.084	0.0	92	719408	9.87	
92 Styrene	104	9.096	9.096	0.0	94	1213411	10.2	
93 Bromoform	173	9.297	9.297	0.0	99	218626	9.97	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	1817875	9.92	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	83	387806	8.21	
98 Bromobenzene	156	9.748	9.748	0.0	83	531324	9.09	
100 1,2,3-Trichloropropane	110	9.771	9.771	0.0	70	135334	7.92	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.771	0.0	74	95157	7.16	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	535088	9.35	
102 2-Chlorotoluene	126	9.926	9.926	0.0	97	467045	9.48	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	80	1575284	9.35	
104 4-Chlorotoluene	126	10.032	10.032	0.0	96	500139	9.51	
105 tert-Butylbenzene	119	10.317	10.317	0.0	90	1412930	9.11	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1634664	9.61	
107 sec-Butylbenzene	105	10.530	10.530	0.0	94	1848992	9.20	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	987196	9.06	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	92	1669084	9.38	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	93	1036152	9.13	

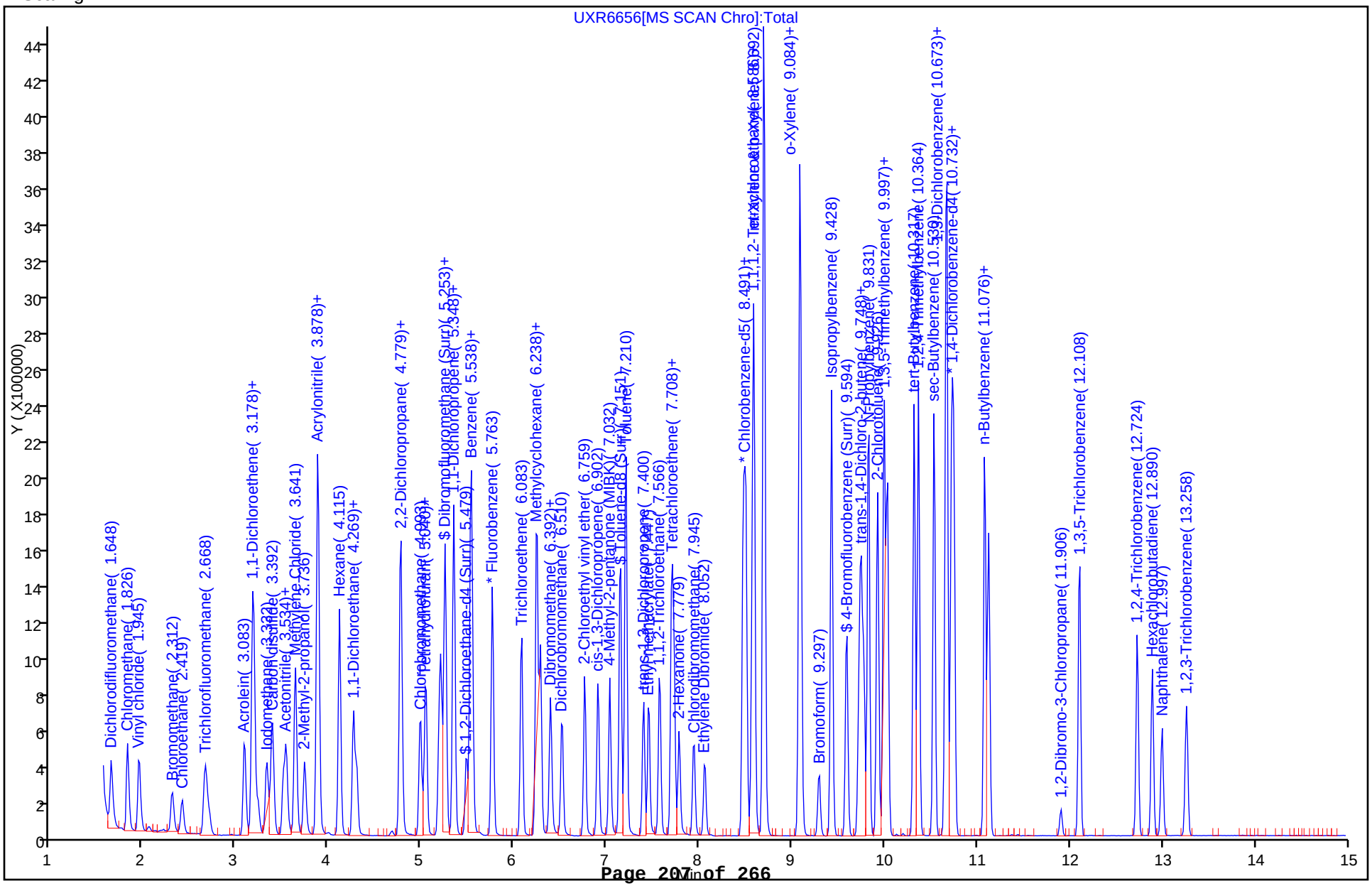
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
112 n-Butylbenzene	91	11.076	11.076	0.0	93	1309911	8.95	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	918661	8.88	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	77	54619	7.16	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	98	657063	8.03	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	93	469178	5.97	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	93	257024	6.44	
118 Naphthalene	128	12.997	12.997	0.0	100	622756	4.46	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	100	336073	4.78	
S 121 Trihalomethanes, Total	1				0		40.8	
S 122 1,2-Dichloroethene, Total	96				0		21.8	
S 123 1,3-Dichloropropene, Total	75				0		19.0	
S 124 Xylenes, Total	106				0		30.2	

Report Date: 29-Jul-2013 10:58:51 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6656.D		
Injection Date:	27-Jul-2013 13:10:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	2
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: CCVIS 240-95368/2 Calibration Date: 07/29/2013 15:15

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6683.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3202	0.3290		1.00	0.0100	2.8	50.0
Chloromethane	Ave	0.4418	0.4656	0.1000	1.00	0.0100	5.4	50.0
Vinyl chloride	Ave	0.3741	0.4054		1.00	0.0100	8.4	20.0
Bromomethane	Ave	0.1155	0.1513		1.00	0.0100	31.0	50.0
Chloroethane	Ave	0.1132	0.1592		1.00	0.0100	40.6	50.0
Trichlorofluoromethane	Ave	0.3266	0.3604		1.00	0.0100	10.4	50.0
Acrolein	Ave	0.0479	0.0409		20.0	0.100	-14.6	50.0
1,1-Dichloroethene	Ave	0.2763	0.2945		1.00	0.0100	6.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2358	0.2598		1.00	0.0100	10.2	50.0
Acetone	Lin1		0.1187		10.0	0.0200	24.6	50.0
Iodomethane	Ave	0.4062	0.4500		1.00	0.0100	10.8	50.0
Carbon disulfide	Ave	0.7726	0.8351		1.00	0.0100	8.1	50.0
Acetonitrile	Lin1		0.0369		20.0	0.100	7.1	50.0
Methyl acetate	Ave	0.2382	0.2260		10.0	0.0200	-5.1	50.0
Methylene Chloride	Lin1		0.3273		1.00	0.0100	-5.0	50.0
2-Methyl-2-propanol	Ave	0.0184	0.0171		50.0	0.200	-6.9	50.0
Acrylonitrile	Ave	0.1236	0.1156		20.0	0.0200	-6.5	50.0
Methyl tert-butyl ether	Ave	0.7459	0.7104		1.00	0.0100	-4.8	50.0
trans-1,2-Dichloroethene	Ave	0.3011	0.3205		1.00	0.0100	6.4	50.0
Hexane	Ave	0.0750	0.0740		1.00	0.0100	-1.3	20.0
1,1-Dichloroethane	Ave	0.5220	0.5339	0.1000	1.00	0.0100	2.3	50.0
Vinyl acetate	Ave	0.0464	0.0386		2.00	0.0100	-16.9	50.0
2,2-Dichloropropane	Ave	0.2835	0.2949		1.00	0.0100	4.0	50.0
2-Butanone (MEK)	Ave	0.1316	0.1219		10.0	0.0200	-7.4	50.0
cis-1,2-Dichloroethene	Ave	0.3056	0.3171		1.00	0.0100	3.7	50.0
Chlorobromomethane	Ave	0.1468	0.1599		1.00	0.0100	8.9	50.0
Tetrahydrofuran	Ave	0.0801	0.0732		5.00	0.0100	-8.7	50.0
Chloroform	Ave	0.5063	0.5284		1.00	0.0100	4.4	20.0
1,1,1-Trichloroethane	Ave	0.4071	0.4224		1.00	0.0100	3.8	50.0
Cyclohexane	Ave	0.5827	0.5984		1.00	0.0100	2.7	50.0
1,1-Dichloropropene	Ave	0.3869	0.4051		1.00	0.0100	4.7	50.0
Carbon tetrachloride	Ave	0.3771	0.3944		1.00	0.0100	4.6	50.0
Benzene	Ave	1.171	1.193		1.00	0.0100	1.9	50.0
1,2-Dichloroethane	Ave	0.4201	0.4268		1.00	0.0100	1.6	50.0
Trichloroethene	Ave	0.2979	0.3232		1.00	0.0100	8.5	50.0
Methylcyclohexane	Ave	0.4828	0.4902		1.00	0.0100	1.5	50.0
1,2-Dichloropropane	Ave	0.2921	0.2940		1.00	0.0100	0.6	20.0
1,4-Dioxane	Ave	0.0025	0.0022		50.0	0.500	-12.7	50.0
Dibromomethane	Ave	0.1529	0.1601		1.00	0.0100	4.7	50.0
Bromodichloromethane	Ave	0.3429	0.3629		1.00	0.0100	5.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: CCVIS 240-95368/2 Calibration Date: 07/29/2013 15:15

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6683.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1590	0.1434		10.0	0.0200	-9.8	50.0
cis-1,3-Dichloropropene	Ave	0.3874	0.3879		1.00	0.0100	0.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2569	0.2321		10.0	0.0200	-9.7	50.0
Toluene	Ave	1.523	1.472		1.00	0.0100	-3.3	20.0
trans-1,3-Dichloropropene	Lin1		0.3922		1.00	0.0100	-18.2	50.0
Ethyl methacrylate	Lin1		0.3596		1.00	0.0100	-19.7	50.0
1,1,2-Trichloroethane	Ave	0.2989	0.2790		1.00	0.0100	-6.7	50.0
Tetrachloroethene	Ave	0.3422	0.3379		1.00	0.0100	-1.3	50.0
1,3-Dichloropropane	Ave	0.5460	0.4897		1.00	0.0100	-10.3	50.0
2-Hexanone	Ave	0.2215	0.1873		10.0	0.0200	-15.4	50.0
Dibromochloromethane	Ave	0.3056	0.2989		1.00	0.0100	-2.2	50.0
1,2-Dibromoethane	Ave	0.3019	0.2790		1.00	0.0100	-7.6	50.0
Chlorobenzene	Ave	1.041	0.9835	0.3000	1.00	0.0100	-5.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3495	0.3436		1.00	0.0100	-1.7	50.0
Ethylbenzene	Ave	0.5348	0.5209		1.00	0.0100	-2.6	20.0
m-Xylene & p-Xylene	Ave	0.6704	0.6678		2.00	0.0200	-0.4	50.0
o-Xylene	Ave	0.6303	0.6052		1.00	0.0100	-4.0	50.0
Styrene	Ave	1.025	1.024		1.00	0.0100	-0.1	50.0
Bromoform	Ave	0.1896	0.1963	0.1000	1.00	0.0100	3.5	50.0
Isopropylbenzene	Ave	1.585	1.541		1.00	0.0100	-2.7	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6677	0.5332	0.3000	1.00	0.0100	-20.2	50.0
Bromobenzene	Ave	0.8260	0.7159		1.00	0.0100	-13.3	50.0
1,2,3-Trichloropropane	Ave	0.2416	0.1896		1.00	0.0100	-21.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1878	0.1406		1.00	0.0100	-25.1	50.0
N-Propylbenzene	Ave	0.8092	0.7457		1.00	0.0100	-7.8	50.0
2-Chlorotoluene	Ave	0.6963	0.6410		1.00	0.0100	-7.9	50.0
1,3,5-Trimethylbenzene	Ave	2.380	2.149		1.00	0.0100	-9.7	50.0
4-Chlorotoluene	Ave	0.7433	0.6818		1.00	0.0100	-8.3	50.0
tert-Butylbenzene	Ave	2.192	1.902		1.00	0.0100	-13.3	50.0
1,2,4-Trimethylbenzene	Ave	2.403	2.210		1.00	0.0100	-8.0	50.0
sec-Butylbenzene	Ave	2.839	2.558		1.00	0.0100	-9.9	50.0
1,3-Dichlorobenzene	Ave	1.540	1.350		1.00	0.0100	-12.4	50.0
4-Isopropyltoluene	Ave	2.514	2.257		1.00	0.0100	-10.2	50.0
1,4-Dichlorobenzene	Ave	1.604	1.396		1.00	0.0100	-13.0	50.0
n-Butylbenzene	Ave	2.069	1.759		1.00	0.0100	-15.0	50.0
1,2-Dichlorobenzene	Ave	1.463	1.226		1.00	0.0100	-16.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1078	0.0800		2.00	0.0100	-25.8	50.0
1,3,5-Trichlorobenzene	Ave	1.157	0.9109		1.00	0.0100	-21.3	50.0
1,2,4-Trichlorobenzene	Qua		0.6668		1.00	0.0100	-40.0	50.0
Hexachlorobutadiene	Qua		0.3696		1.00	0.0100	-34.5	50.0
Naphthalene	Ave	1.974	0.9154		1.00	0.0100	-53.6*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Lab Sample ID: CCVIS 240-95368/2 Calibration Date: 07/29/2013 15:15

Instrument ID: A3UX17 Calib Start Date: 07/02/2013 09:46

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/02/2013 11:37

Lab File ID: UXR6683.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Lin1		0.4947		1.00	0.0100	-50.2*	50.0
Dibromofluoromethane (Surr)	Ave	0.2564	0.2389		0.00830	0.00891	-6.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3470	0.2959		0.00760	0.00891	-14.7	50.0
Toluene-d8 (Surr)	Ave	1.349	1.151		0.00761	0.00891	-14.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5052	0.4465		0.00788	0.00891	-11.6	50.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6683.D
Lims ID: CCVIS L4 8260 Client ID:
Inject. Date: 29-Jul-2013 15:15:30 Dil. Factor: 1.0000
Sample Type: CCVIS
Sample ID: 240-0022028-002
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 1
Lims Batch ID: 95368 Lims Sample ID: 2
Sublist: chrom-8260_17*sub1
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m
Last Update: 30-Jul-2013 11:08:26 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK021

First Level Reviewer: williamsla Date: 29-Jul-2013 15:48:19

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1215179	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	1059979	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	93	657107	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.182	5.182	0.0	59	258664	8.30	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.479	5.479	0.0	0	320424	7.60	
$ 8 Toluene-d8 (Surr)	98	7.139	7.139	0.0	93	1087159	7.61	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.582	0.0	95	421674	7.88	
14 Dichlorodifluoromethane	85	1.648	1.648	0.0	87	399820	10.3	
15 Chloromethane	50	1.826	1.826	0.0	88	565766	10.5	
17 Vinyl chloride	62	1.945	1.945	0.0	83	492647	10.8	
18 Bromomethane	94	2.313	2.313	0.0	90	183867	13.1	
19 Chloroethane	64	2.419	2.419	0.0	94	193472	14.1	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	86	437999	11.0	
24 Acrolein	56	3.083	3.083	0.0	94	496754	85.4	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	89	357846	10.7	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.190	0.0	80	315686	11.0	
27 Acetone	43	3.237	3.237	0.0	98	288528	24.9	
28 Iodomethane	142	3.332	3.332	0.0	98	546824	11.1	
29 Carbon disulfide	76	3.392	3.392	0.0	99	1014832	10.8	
30 Acetonitrile	41	3.510	3.510	0.0	99	448177	107.1	
32 Methyl acetate	43	3.534	3.534	0.0	99	549209	19.0	
33 Methylene Chloride	84	3.641	3.641	0.0	93	397765	9.50	
34 2-Methyl-2-propanol	59	3.736	3.736	0.0	97	415418	186.2	
36 Acrylonitrile	53	3.878	3.878	0.0	45	280830	18.7	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	92	863293	9.52	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	94	389405	10.6	
38 Hexane	86	4.115	4.115	0.0	95	89931	9.87	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	648726	10.2	
40 Vinyl acetate	86	4.305	4.305	0.0	97	46908	8.31	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
44 2,2-Dichloropropane	77	4.767	4.767	0.0	64	358398	10.4	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	71	385318	10.4	
46 2-Butanone (MEK)	43	4.779	4.779	0.0	94	296239	18.5	
50 Chlorobromomethane	128	4.993	4.993	0.0	93	194323	10.9	
51 Tetrahydrofuran	42	5.028	5.028	0.0	93	88898	9.13	
52 Chloroform	83	5.052	5.052	0.0	70	642121	10.4	
53 1,1,1-Trichloroethane	97	5.206	5.206	0.0	90	513320	10.4	
54 Cyclohexane	56	5.253	5.253	0.0	92	727131	10.3	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	92	492229	10.5	
55 Carbon tetrachloride	117	5.348	5.348	0.0	78	479226	10.5	
58 Benzene	78	5.538	5.538	0.0	97	1450251	10.2	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	518601	10.2	
63 Trichloroethene	130	6.084	6.084	0.0	93	392758	10.9	
65 Methylcyclohexane	83	6.250	6.250	0.0	92	595623	10.2	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	92	357198	10.1	
68 1,4-Dioxane	88	6.392	6.392	0.0	57	134973	436.3	
69 Dibromomethane	93	6.392	6.392	0.0	85	194558	10.5	
70 Dichlorobromomethane	83	6.510	6.510	0.0	94	440987	10.6	
72 2-Chloroethyl vinyl ether	63	6.759	6.759	0.0	91	348531	18.0	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	88	471396	10.0	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	97	564038	18.1	
75 Toluene	91	7.210	7.210	0.0	97	1560388	9.67	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	415733	8.18	
77 Ethyl methacrylate	69	7.459	7.459	0.0	89	381125	8.03	
78 1,1,2-Trichloroethane	97	7.566	7.566	0.0	87	295720	9.33	
79 Tetrachloroethene	164	7.696	7.696	0.0	93	358163	9.87	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	519092	8.97	
82 2-Hexanone	43	7.779	7.779	0.0	96	397135	16.9	
84 Chlorodibromomethane	129	7.933	7.933	0.0	91	316775	9.78	
85 Ethylene Dibromide	107	8.052	8.052	0.0	98	295718	9.24	
87 Chlorobenzene	112	8.503	8.503	0.0	95	1042472	9.45	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	364243	9.83	
89 Ethylbenzene	106	8.586	8.586	0.0	98	552094	9.74	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	99	1415598	19.9	
91 o-Xylene	106	9.084	9.084	0.0	93	641499	9.60	
92 Styrene	104	9.096	9.096	0.0	94	1085428	9.99	
93 Bromoform	173	9.285	9.285	0.0	98	208044	10.4	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	1633406	9.73	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	83	350336	7.98	
98 Bromobenzene	156	9.748	9.748	0.0	85	470410	8.67	
100 1,2,3-Trichloropropane	110	9.772	9.772	0.0	77	124562	7.85	
99 trans-1,4-Dichloro-2-butene	53	9.772	9.772	0.0	63	92418	7.49	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	489998	9.22	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	421188	9.21	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	81	1412049	9.03	
104 4-Chlorotoluene	126	10.032	10.032	0.0	96	448042	9.17	
105 tert-Butylbenzene	119	10.317	10.317	0.0	90	1249648	8.67	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1452253	9.20	
107 sec-Butylbenzene	105	10.530	10.530	0.0	93	1680948	9.01	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	886765	8.76	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	95	1483373	8.98	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	93	917062	8.70	

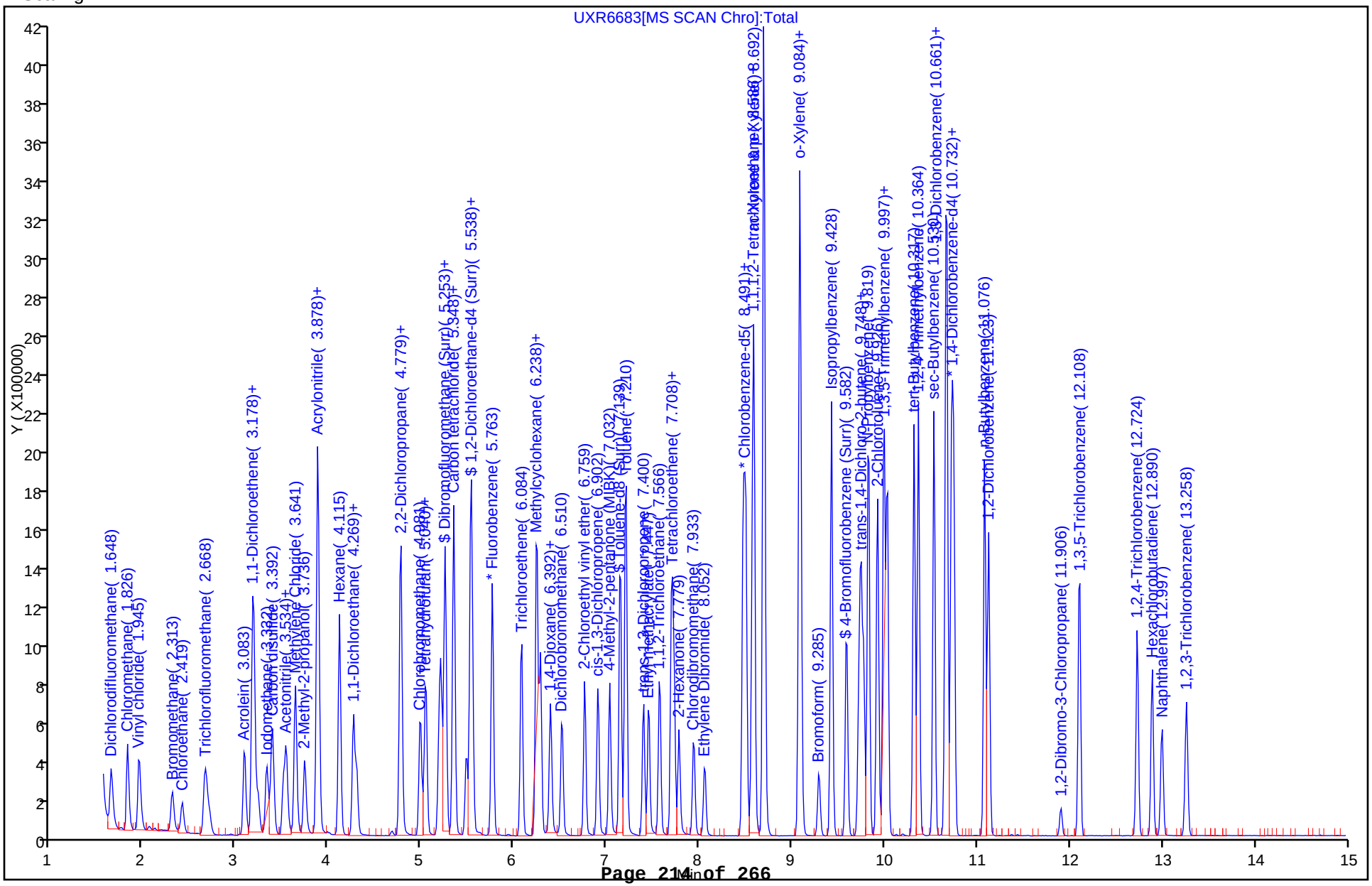
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
112 n-Butylbenzene	91	11.076	11.076	0.0	96	1155569	8.50	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	96	805895	8.38	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	74	52565	7.42	
115 1,3,5-Trichlorobenzene	180	12.108	12.108	0.0	97	598578	7.87	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	92	438172	6.00	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	91	242883	6.55	
118 Naphthalene	128	12.997	12.997	0.0	100	601534	4.64	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	325057	4.98	
S 121 Trihalomethanes, Total	1				0		41.1	
S 122 1,2-Dichloroethene, Total	96				0		21.0	
S 123 1,3-Dichloropropene, Total	75				0		18.2	
S 124 Xylenes, Total	106				0		29.5	

Report Date: 30-Jul-2013 11:08:27 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6683.D		
Injection Date:	29-Jul-2013 15:15:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	2
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\BFB353.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	02-Jul-2013 09:20:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	240-0021310-001		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	27
Lims Batch ID:	92260	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\8260_17.m		
Last Update:	03-Jul-2013 08:41:03	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK026		
First Level Reviewer: quayler		Date:	02-Jul-2013 14:08:23

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 5 BFB	95	3.893	3.893	0.0	0	464302	0	

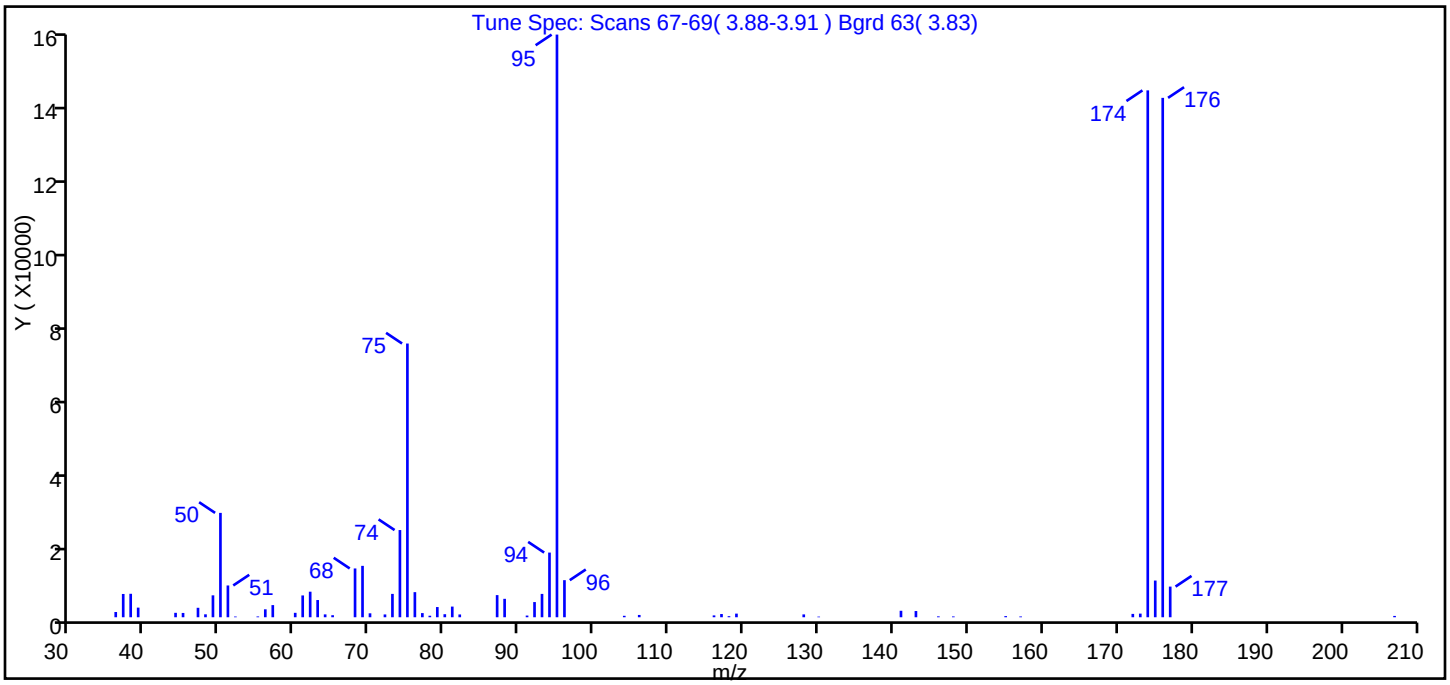
Report Date: 03-Jul-2013 08:41:04 Chrom Revision: 2.0 01-Apr-2013 21:16:10

MS Tune Report

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\BFB353.D		
Injection Date:	02-Jul-2013 09:20:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	92260	Lims Sample ID:	1
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm
Tune Method:	BFB Method 8260		

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.91
75	30.00 - 60.00% of mass 95	46.98
96	5.00 - 9.00% of mass 95	6.37
173	Less than 2.00% of mass 174	0.62 (0.69)
174	Greater than 50.00% of mass 95	90.43
175	5.00 - 9.00% of mass 174	6.30 (6.97)
176	95.00 - 101.00% of mass 174	89.14 (98.58)
177	5.00 - 9.00% of mass 176	5.26 (5.90)

Data File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\BFB353.D\8260_17.rslt\spectra.d
Injection Date: 02-Jul-2013 09:20:30
Spectrum: Tune Spec: Scans 67-69(3.88-3.91) Bgrd 63(3.83)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1394	61.00	5783	80.00	809	119.00	964
37.00	6173	62.00	6775	81.00	2828	128.00	758
38.00	6220	63.00	4564	82.00	742	130.00	169
39.00	2553	64.00	762	87.00	5869	141.00	1718
44.00	1174	65.00	543	88.00	4886	143.00	1650
45.00	1140	68.00	12935	91.00	450	146.00	234
47.00	2509	69.00	13623	92.00	4025	148.00	214
48.00	781	70.00	1047	93.00	6189	155.00	307
49.00	5810	72.00	748	94.00	17144	157.00	213
50.00	27664	73.00	6193	95.00	154432	172.00	892
51.00	8424	74.00	23112	96.00	9830	173.00	964
52.00	193	75.00	72552	104.00	385	174.00	139648
55.00	214	76.00	6654	106.00	611	175.00	9728
56.00	2107	77.00	1104	116.00	492	176.00	137664
57.00	3221	78.00	405	117.00	856	177.00	8125
60.00	1174	79.00	2704	118.00	287	207.00	352

Report Date: 29-Jul-2013 10:58:50 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\BFB395.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	27-Jul-2013 12:36:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	240-0021993-001		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	1
Lims Batch ID:	95231	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:50	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		
First Level Reviewer: williamsla		Date:	27-Jul-2013 12:45:49

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 5 BFB	95	3.893	3.893	0.0	0	452734	0	

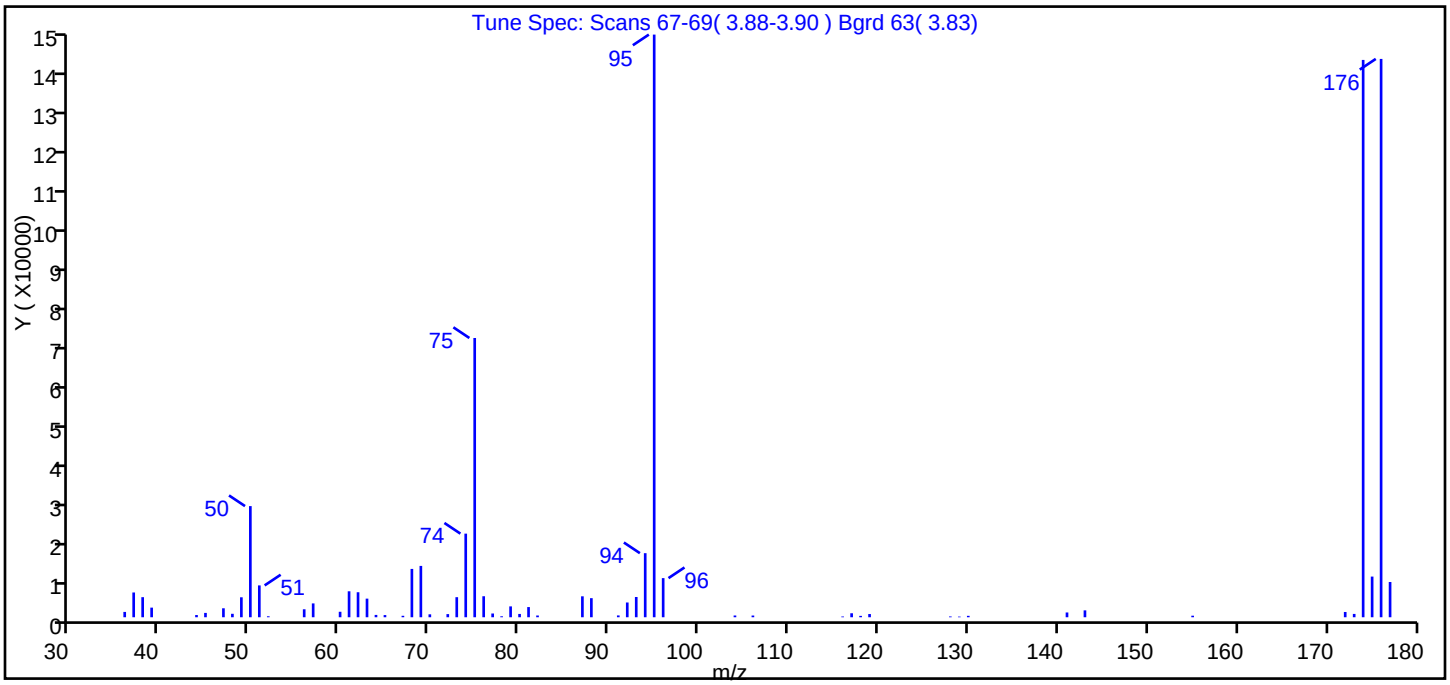
Report Date: 29-Jul-2013 10:58:50 Chrom Revision: 2.0 01-Apr-2013 21:16:10

MS Tune Report

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\BFB395.D		
Injection Date:	27-Jul-2013 12:36:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	1
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm
Tune Method:	BFB Method 8260		

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.08
75	30.00 - 60.00% of mass 95	47.93
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.57 (0.60)
174	Greater than 50.00% of mass 95	95.65
175	5.00 - 9.00% of mass 174	6.98 (7.30)
176	95.00 - 101.00% of mass 174	95.82 (100.18)
177	5.00 - 9.00% of mass 176	6.05 (6.31)

Data File: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\BFB395.D\8260_17.rslt\spectra.d
Injection Date: 27-Jul-2013 12:36:30
Spectrum: Tune Spec: Scans 67-69(3.88-3.90) Bgrd 63(3.83)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 61

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1361	62.00	6383	80.00	846	119.00	820
37.00	6320	63.00	4750	81.00	2599	128.00	202
38.00	5124	64.00	595	82.00	447	129.00	169
39.00	2458	65.00	556	87.00	5342	130.00	364
44.00	566	67.00	373	88.00	4871	141.00	1219
45.00	1110	68.00	12332	91.00	467	143.00	1759
47.00	2290	69.00	13101	92.00	3766	155.00	396
48.00	883	70.00	750	93.00	5170	172.00	1346
49.00	5093	72.00	804	94.00	16350	173.00	851
50.00	28360	73.00	5121	95.00	148672	174.00	142208
51.00	8128	74.00	21336	96.00	9985	175.00	10378
52.00	250	75.00	71256	104.00	450	176.00	142464
56.00	2037	76.00	5361	106.00	438	177.00	8994
57.00	3533	77.00	959	116.00	195		
60.00	1400	78.00	246	117.00	1021		
61.00	6627	79.00	2773	118.00	354		

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\BFB398.D		
Lims ID:	BFB	Client ID:	
Inject. Date:	29-Jul-2013 14:48:30	Dil. Factor:	1.0000
Sample Type:	BFB		
Sample ID:	240-0022028-001		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	1
Lims Batch ID:	95368	Lims Sample ID:	1
Detector:	MS SCAN		
Method:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m		
Last Update:	30-Jul-2013 11:08:26	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK021		
First Level Reviewer: williamsla		Date:	29-Jul-2013 15:21:04

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
$ 5 BFB	95	3.846	3.846	0.0	0	700216	0	

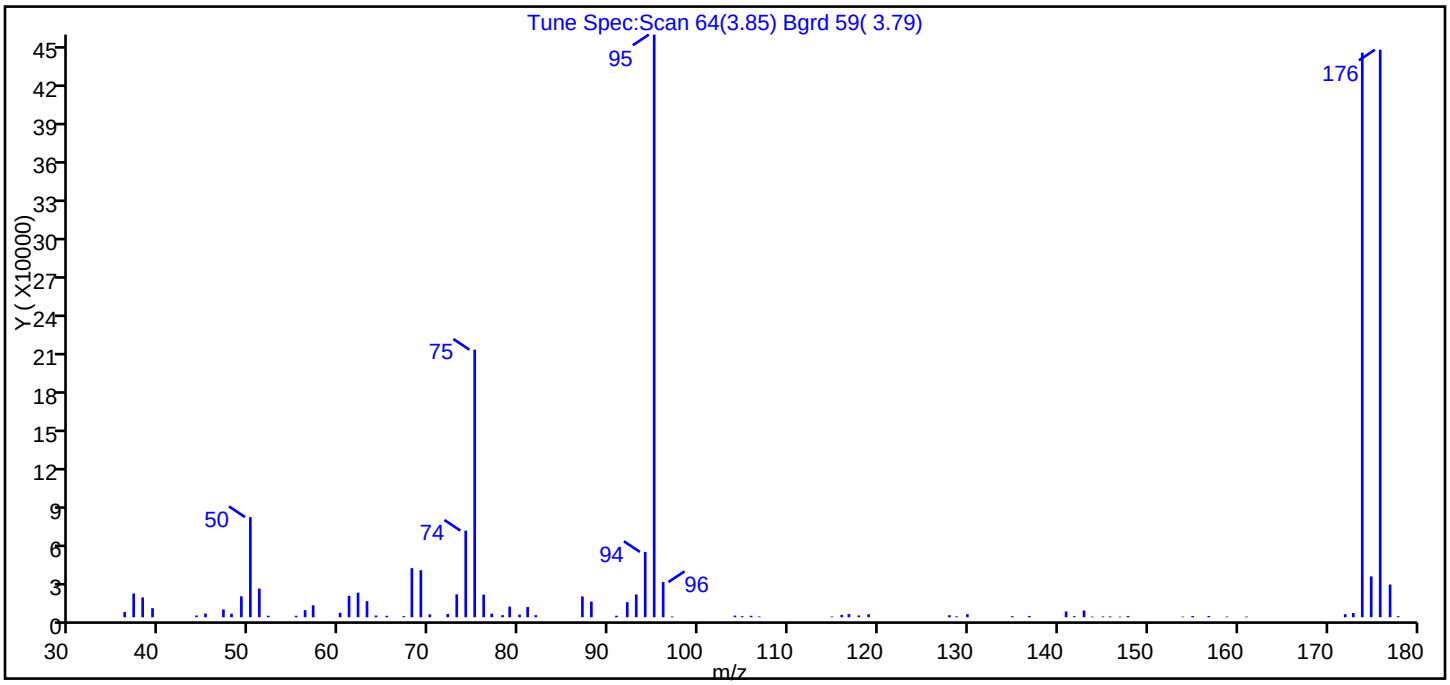
Report Date: 30-Jul-2013 11:08:26 Chrom Revision: 2.0 01-Apr-2013 21:16:10

MS Tune Report

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\BFB398.D		
Injection Date:	29-Jul-2013 14:48:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	1
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm
Tune Method:	BFB Method 8260		

$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.19
75	30.00 - 60.00% of mass 95	45.92
96	5.00 - 9.00% of mass 95	6.05
173	Less than 2.00% of mass 174	0.73 (0.75)
174	Greater than 50.00% of mass 95	96.90
175	5.00 - 9.00% of mass 174	7.01 (7.24)
176	95.00 - 101.00% of mass 174	97.40 (100.51)
177	5.00 - 9.00% of mass 176	5.63 (5.78)

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\BFB398.D\8260_17.rslt\spectra.d
Injection Date: 29-Jul-2013 14:48:30
Spectrum: Tune Spec:Scan 64(3.85) Bgrd 59(3.79)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 79

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4158	65.20	1149	93.00	17624	141.80	834
37.00	18376	67.10	881	94.00	50520	142.90	5211
38.00	15286	68.00	37968	95.00	450560	143.80	515
39.10	7009	69.00	36368	96.00	27240	145.00	629
44.00	1366	70.00	2245	97.00	610	145.80	675
45.00	2875	72.00	2568	104.00	1281	146.90	500
47.00	6025	73.00	17720	104.80	846	147.80	956
47.90	2725	74.00	66984	105.80	1132	153.90	514
49.00	16190	75.00	206912	106.70	615	155.00	970
50.00	77456	76.00	17480	114.80	551	156.80	938
51.00	22216	76.90	2758	115.90	1885	158.80	547
52.00	1184	78.10	1639	116.70	2469	161.00	545
55.10	1176	78.90	8256	117.80	1411	172.00	2351
56.10	5514	80.00	2039	118.90	2321	172.90	3283
57.00	9280	80.90	7944	127.90	1592	173.90	436608
60.00	3427	81.80	1646	128.70	740	174.90	31600
61.00	16632	87.00	16098	129.90	2360	175.90	438848
62.00	19000	88.00	12128	134.90	820	177.00	25352
63.00	12470	90.80	1213	136.80	996	177.90	814
64.00	1370	92.00	11694	140.90	4495		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-95231/6

Matrix: Water | Lab File ID: UXR6660.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 14:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-95231/6

Matrix: Water | Lab File ID: UXR6660.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 14:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129
460-00-4	4-Bromofluorobenzene (Surr)	75		66-117
2037-26-5	Toluene-d8 (Surr)	75		74-115
1868-53-7	Dibromofluoromethane (Surr)	95		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6660.D		
Lims ID:	MB	Client ID:	
Inject. Date:	27-Jul-2013 14:39:30	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	240-0021993-006		
Misc. Info.:			
Operator:	1644	Instrument ID:	A3UX17
Purge Vol:	5.000 mL	ALS Bottle#:	5
Lims Batch ID:	95231	Lims Sample ID:	6
Detector:	MS SCAN		

Method:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m		
Last Update:	29-Jul-2013 10:58:51	Calib Date:	02-Jul-2013 11:37:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Column Type:	DB-624	Column Dia:	0.18 mm
Process Host:	XAWRK027		

First Level Reviewer: williamsla Date: 29-Jul-2013 10:43:09

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1221170	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	1122551	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	95	541149	10.0	
$ 4 1,2-Dichlorobenzene-d4	1		0.000					
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	265571	8.48	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.479	0.011	0	347756	8.21	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	1005626	6.64	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	96	379436	6.69	
150 2-Ethyltoluene	1		0.000					
148 Ethylene oxide	1		0.000					
10 C6-C12	1		0.000					
149 3-Ethyltoluene	1		0.000					
12 C6-C10	1		0.000					
152 Propene oxide	1		0.000					
153 Epichlorohydrin	1		0.000					
151 Pentachloroethane	167		0.000					
13 Benzyl chloride	126		0.000					
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					
16 Chlorodifluoromethane TIC	1		1.900					
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.312					
19 Chloroethane	64		2.419					
20 Dichlorofluoromethane	67		2.621					
21 Trichlorofluoromethane	101		2.668					
23 Methylal	45		2.941					
22 Ethyl ether	59		2.953					
24 Acrolein	56		3.083					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
27 Acetone	43		3.237					
28 Iodomethane	142		3.332					
29 Carbon disulfide	76		3.392					
30 Acetonitrile	41		3.510					
31 3-Chloro-1-propene	76		3.522					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84	3.641	3.641	0.0	97	60500	0.2970	
34 2-Methyl-2-propanol	59		3.736					9
36 Acrylonitrile	53		3.878					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
38 Hexane	86		4.115					
39 1,1-Dichloroethane	63		4.269					
41 Isopropyl ether	87		4.305					
40 Vinyl acetate	86		4.305					
42 2-Chloro-1,3-butadiene	53		4.340					
43 Tert-butyl ethyl ether	59		4.625					
44 2,2-Dichloropropane	77		4.767					
45 cis-1,2-Dichloroethene	96		4.779					
46 2-Butanone (MEK)	43		4.779					
47 Ethyl acetate	43		4.826					9
48 Propionitrile	54		4.850					
49 Methacrylonitrile	41		4.980					
50 Chlorobromomethane	128		4.993					
51 Tetrahydrofuran	42		5.028					9
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
56 1,1-Dichloropropene	75		5.348					
55 Carbon tetrachloride	117		5.348					
57 Isobutyl alcohol	41		5.431					
58 Benzene	78	5.538	5.538	0.0	25	16374	0.1145	
59 1,2-Dichloroethane	62		5.550					
60 Tert-amyl methyl ether	73		5.609					
61 n-Heptane	100		5.728					
62 n-Butanol	56		5.988					
63 Trichloroethene	130		6.083					
64 Ethyl acrylate	55		6.100					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
67 Methyl methacrylate	41		6.356					
68 1,4-Dioxane	88		6.392					
69 Dibromomethane	93		6.392					
70 Dichlorobromomethane	83		6.522					
71 2-Nitropropane	41		6.724					
72 2-Chloroethyl vinyl ether	63		6.759					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
77 Ethyl methacrylate	69		7.447					
78 1,1,2-Trichloroethane	97		7.566					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
79 Tetrachloroethene	164		7.696					
80 Tetrahydrothiophene	60		7.700					
81 1,3-Dichloropropane	76		7.732					
82 2-Hexanone	43		7.779					
83 n-Butyl acetate	56		7.886					
84 Chlorodibromomethane	129		7.945					
85 Ethylene Dibromide	107		8.052					
86 1-Chlorohexane	91		8.300					
87 Chlorobenzene	112		8.503					
88 1,1,1,2-Tetrachloroethane	131		8.574					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.297					
94 1,4-Dichlorobutane	55		9.300					
95 Isopropylbenzene	105		9.428					
96 Cyclohexanone	55		9.546					9
97 1,1,2,2-Tetrachloroethane	83		9.724					
98 Bromobenzene	156		9.748					
100 1,2,3-Trichloropropane	110		9.771					
99 trans-1,4-Dichloro-2-butene	53		9.771					
101 N-Propylbenzene	120		9.831					
102 2-Chlorotoluene	126		9.926					
103 1,3,5-Trimethylbenzene	105		9.997					
104 4-Chlorotoluene	126		10.032					
105 tert-Butylbenzene	119		10.317					
106 1,2,4-Trimethylbenzene	105		10.364					
107 sec-Butylbenzene	105		10.530					9
108 1,3-Dichlorobenzene	146		10.661					
109 4-Isopropyltoluene	119		10.673					9
110 1,4-Dichlorobenzene	146		10.744					
111 1,2,3-Trimethylbenzene	105		10.791					
112 n-Butylbenzene	91		11.076					9
113 1,2-Dichlorobenzene	146		11.123					
11 1,3-Diethylbenzene TIC	1		11.200					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
115 1,3,5-Trichlorobenzene	180		12.108					
116 1,2,4-Trichlorobenzene	180		12.724					9
117 Hexachlorobutadiene	225		12.890					9
118 Naphthalene	128		12.997					9
119 1,2,3-Trichlorobenzene	180		13.258					9
120 2-Methylnaphthalene	142		14.384					
S 121 Trihalomethanes, Total	1		0.000					7
S 122 1,2-Dichloroethene, Total	96		1.140					7
S 123 1,3-Dichloropropene, Total	75		6.760					7
S 124 Xylenes, Total	106		16.530					7
T 146 Isobutylene TIC	1		1.900					1
T 147 1,3-Butadiene TIC	1		2.100					1
T 125 Butyl Methacrylate TIC	1		9.900					1
T 126 Hexachloroethane TIC	1		11.200					1

QC Flag Legend

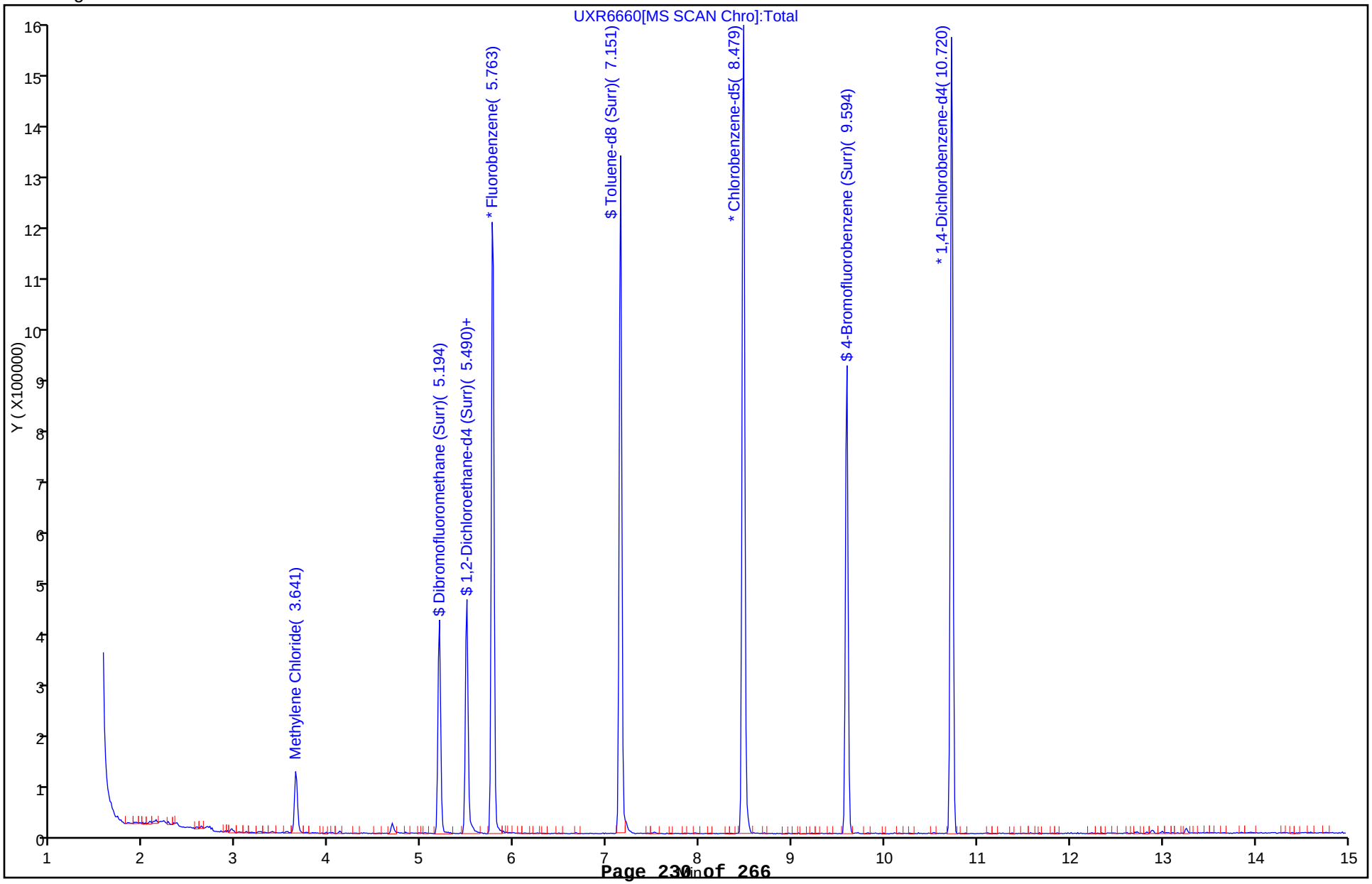
Processing Flags
1 - Missing Peaks
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 29-Jul-2013 10:58:52 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6660.D		
Injection Date:	27-Jul-2013 14:39:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	6
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-95368/6

Matrix: Water | Lab File ID: UXR6687.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/29/2013 16:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	5.30	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
78-93-3	2-Butanone (MEK)	10	U	10	0.57
75-15-0	Carbon disulfide	5.0	U	5.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
591-78-6	2-Hexanone	10	U	10	0.41
75-09-2	Methylene Chloride	5.0	U	5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	0.32
100-42-5	Styrene	1.0	U	1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
79-01-6	Trichloroethene	1.0	U	1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	1.0	U	1.0	0.096
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.27
110-82-7	Cyclohexane	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-95368/6

Matrix: Water | Lab File ID: UXR6687.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/29/2013 16:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
79-20-9	Methyl acetate	10	U	10	0.38
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
108-87-2	Methylcyclohexane	1.0	U	1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	74		66-117
2037-26-5	Toluene-d8 (Surr)	79		74-115
1868-53-7	Dibromofluoromethane (Surr)	100		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6687.D
Lims ID: MB
Client ID:
Inject. Date: 29-Jul-2013 16:43:30
Dil. Factor: 1.0000
Sample Type: MB
Sample ID: 240-0022028-006
Misc. Info.:
Operator: 1644
Instrument ID: A3UX17
Purge Vol: 5.000 mL
ALS Bottle#: 5
Lims Batch ID: 95368
Lims Sample ID: 6
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m
Last Update: 30-Jul-2013 11:08:27
Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard
Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE
ID Type: Deconvolution ID
Column Type: DB-624
Column Dia: 0.18 mm
Process Host: XAWRK021

First Level Reviewer: williamsla
Date: 29-Jul-2013 17:26:39

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1121328	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	84	1001090	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	94	523904	10.0	
$ 4 1,2-Dichlorobenzene-d4	1		0.000					
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	59	254987	8.87	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.479	0.011	0	323823	8.32	
$ 8 Toluene-d8 (Surr)	98	7.151	7.139	0.012	93	944639	7.00	
$ 9 4-Bromofluorobenzene (Surr)	95	9.593	9.582	0.011	96	334427	6.61	
10 C6-C12	1		0.000					
149 3-Ethyltoluene	1		0.000					
150 2-Ethyltoluene	1		0.000					
148 Ethylene oxide	1		0.000					
153 Epichlorohydrin	1		0.000					
13 Benzyl chloride	126		0.000					
151 Pentachloroethane	167		0.000					
12 C6-C10	1		0.000					
152 Propene oxide	1		0.000					
14 Dichlorodifluoromethane	85		1.648					
15 Chloromethane	50		1.826					
16 Chlorodifluoromethane TIC	1		1.900					
17 Vinyl chloride	62		1.945					
18 Bromomethane	94		2.313					
19 Chloroethane	64		2.419					
20 Dichlorofluoromethane	67		2.633					
21 Trichlorofluoromethane	101		2.668					
23 Methylal	45		2.941					9
22 Ethyl ether	59		2.953					9
24 Acrolein	56		3.083					
25 1,1-Dichloroethene	96		3.178					
26 1,1,2-Trichloro-1,2,2-trifluoroe	151		3.190					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
27 Acetone	43	3.237	3.237	0.0	95	63777	5.30	
28 Iodomethane	142		3.332					
29 Carbon disulfide	76		3.392					
30 Acetonitrile	41		3.510					
31 3-Chloro-1-propene	76		3.522					
32 Methyl acetate	43		3.534					9
33 Methylene Chloride	84		3.641					
34 2-Methyl-2-propanol	59		3.736					9
36 Acrylonitrile	53		3.878					
35 Methyl tert-butyl ether	73		3.878					
37 trans-1,2-Dichloroethene	96		3.890					
38 Hexane	86		4.115					
39 1,1-Dichloroethane	63		4.269					
41 Isopropyl ether	87		4.305					
40 Vinyl acetate	86		4.305					
42 2-Chloro-1,3-butadiene	53		4.340					
43 Tert-butyl ethyl ether	59		4.625					
44 2,2-Dichloropropane	77		4.767					
46 2-Butanone (MEK)	43		4.779					
45 cis-1,2-Dichloroethene	96		4.779					
47 Ethyl acetate	43		4.826					9
48 Propionitrile	54		4.850					
49 Methacrylonitrile	41		4.981					
50 Chlorobromomethane	128		4.993					
51 Tetrahydrofuran	42		5.028					
52 Chloroform	83		5.052					
53 1,1,1-Trichloroethane	97		5.206					
54 Cyclohexane	56		5.253					
55 Carbon tetrachloride	117		5.348					
56 1,1-Dichloropropene	75		5.348					
57 Isobutyl alcohol	41		5.431					
58 Benzene	78		5.538					
59 1,2-Dichloroethane	62		5.550					
60 Tert-amyl methyl ether	73		5.609					
61 n-Heptane	100		5.728					
62 n-Butanol	56		5.989					
63 Trichloroethene	130		6.084					
64 Ethyl acrylate	55		6.100					
65 Methylcyclohexane	83		6.250					
66 1,2-Dichloropropane	63		6.285					
67 Methyl methacrylate	41		6.356					
69 Dibromomethane	93		6.392					
68 1,4-Dioxane	88		6.392					
70 Dichlorobromomethane	83		6.510					
71 2-Nitropropane	41		6.724					
72 2-Chloroethyl vinyl ether	63		6.759					
73 cis-1,3-Dichloropropene	75		6.902					
74 4-Methyl-2-pentanone (MIBK)	43		7.032					
75 Toluene	91		7.210					9
76 trans-1,3-Dichloropropene	75		7.400					
77 Ethyl methacrylate	69		7.459					
78 1,1,2-Trichloroethane	97		7.566					

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
79 Tetrachloroethene	164		7.696					
80 Tetrahydrothiophene	60		7.700					
81 1,3-Dichloropropane	76		7.732					
82 2-Hexanone	43		7.779					
83 n-Butyl acetate	56		7.886					
84 Chlorodibromomethane	129		7.933					
85 Ethylene Dibromide	107		8.052					
86 1-Chlorohexane	91		8.300					
87 Chlorobenzene	112		8.503					
88 1,1,1,2-Tetrachloroethane	131		8.574					
89 Ethylbenzene	106		8.586					
90 m-Xylene & p-Xylene	106		8.692					
91 o-Xylene	106		9.084					
92 Styrene	104		9.096					
93 Bromoform	173		9.285					
94 1,4-Dichlorobutane	55		9.300					
95 Isopropylbenzene	105		9.428					
96 Cyclohexanone	55		9.546					
97 1,1,2,2-Tetrachloroethane	83		9.724					
98 Bromobenzene	156		9.748					
100 1,2,3-Trichloropropane	110		9.772					
99 trans-1,4-Dichloro-2-butene	53		9.772					
101 N-Propylbenzene	120		9.831					
102 2-Chlorotoluene	126		9.926					
103 1,3,5-Trimethylbenzene	105		9.997					
104 4-Chlorotoluene	126		10.032					
105 tert-Butylbenzene	119		10.317					9
106 1,2,4-Trimethylbenzene	105		10.364					
107 sec-Butylbenzene	105		10.530					9
108 1,3-Dichlorobenzene	146		10.661					
109 4-Isopropyltoluene	119		10.673					9
110 1,4-Dichlorobenzene	146		10.744					
111 1,2,3-Trimethylbenzene	105		10.791					
112 n-Butylbenzene	91		11.076					9
113 1,2-Dichlorobenzene	146		11.123					
11 1,3-Diethylbenzene TIC	1		11.200					
114 1,2-Dibromo-3-Chloropropane	157		11.906					
115 1,3,5-Trichlorobenzene	180		12.108					
116 1,2,4-Trichlorobenzene	180		12.724					9
117 Hexachlorobutadiene	225		12.890					9
118 Naphthalene	128		12.997					9
119 1,2,3-Trichlorobenzene	180		13.258					9
120 2-Methylnaphthalene	142		14.384					
S 121 Trihalomethanes, Total	1		0.000					7
S 122 1,2-Dichloroethene, Total	96		1.140					7
S 123 1,3-Dichloropropene, Total	75		6.760					7
S 124 Xylenes, Total	106		16.530					7
T 146 Isobutylene TIC	1		1.900					1
T 147 1,3-Butadiene TIC	1		2.100					1
T 125 Butyl Methacrylate TIC	1		9.900					1
T 126 Hexachloroethane TIC	1		11.200					1

QC Flag Legend

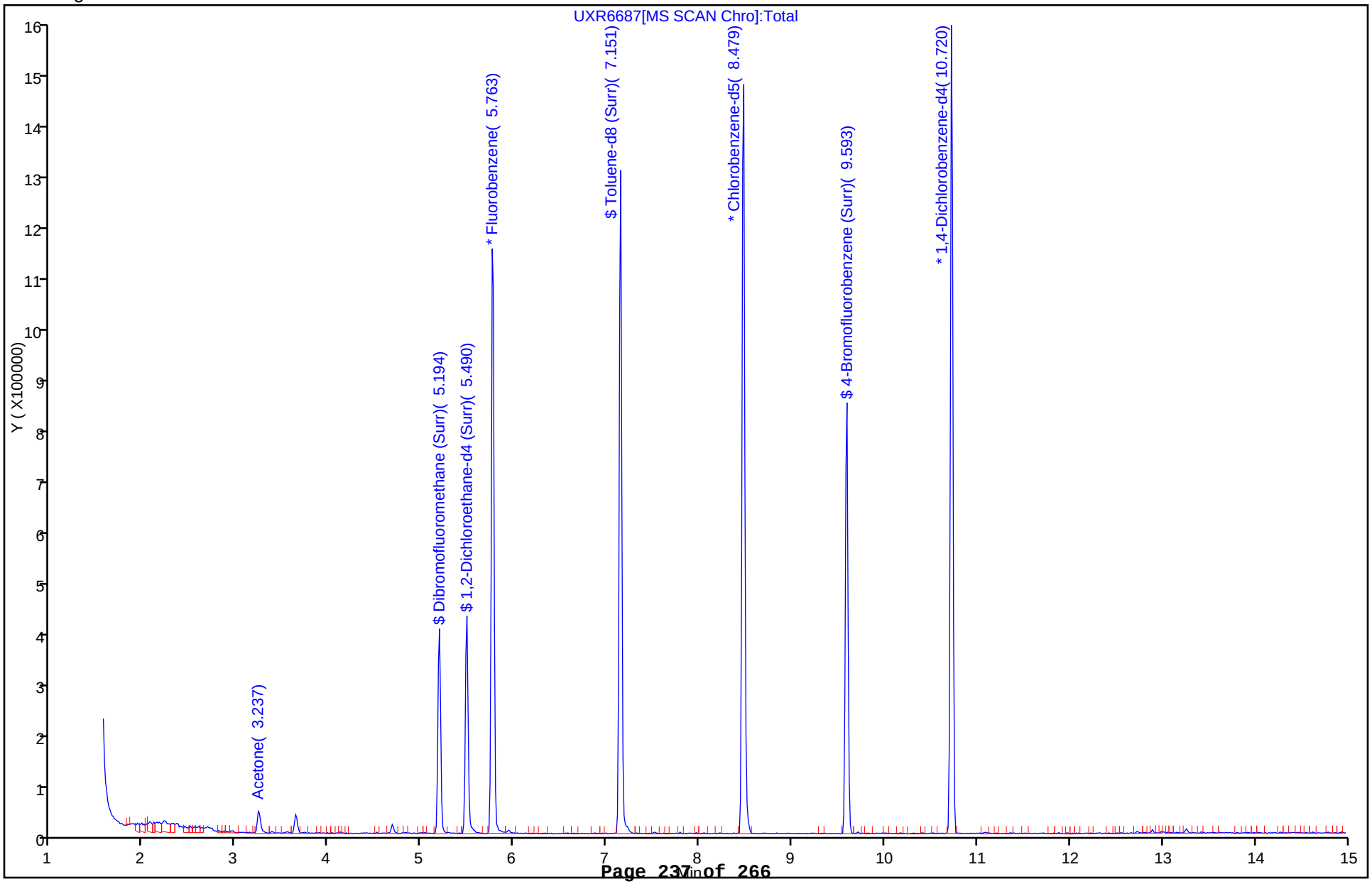
Processing Flags
1 - Missing Peaks
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test

Report Date: 30-Jul-2013 11:08:29 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6687.D		
Injection Date:	29-Jul-2013 16:43:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	6
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:

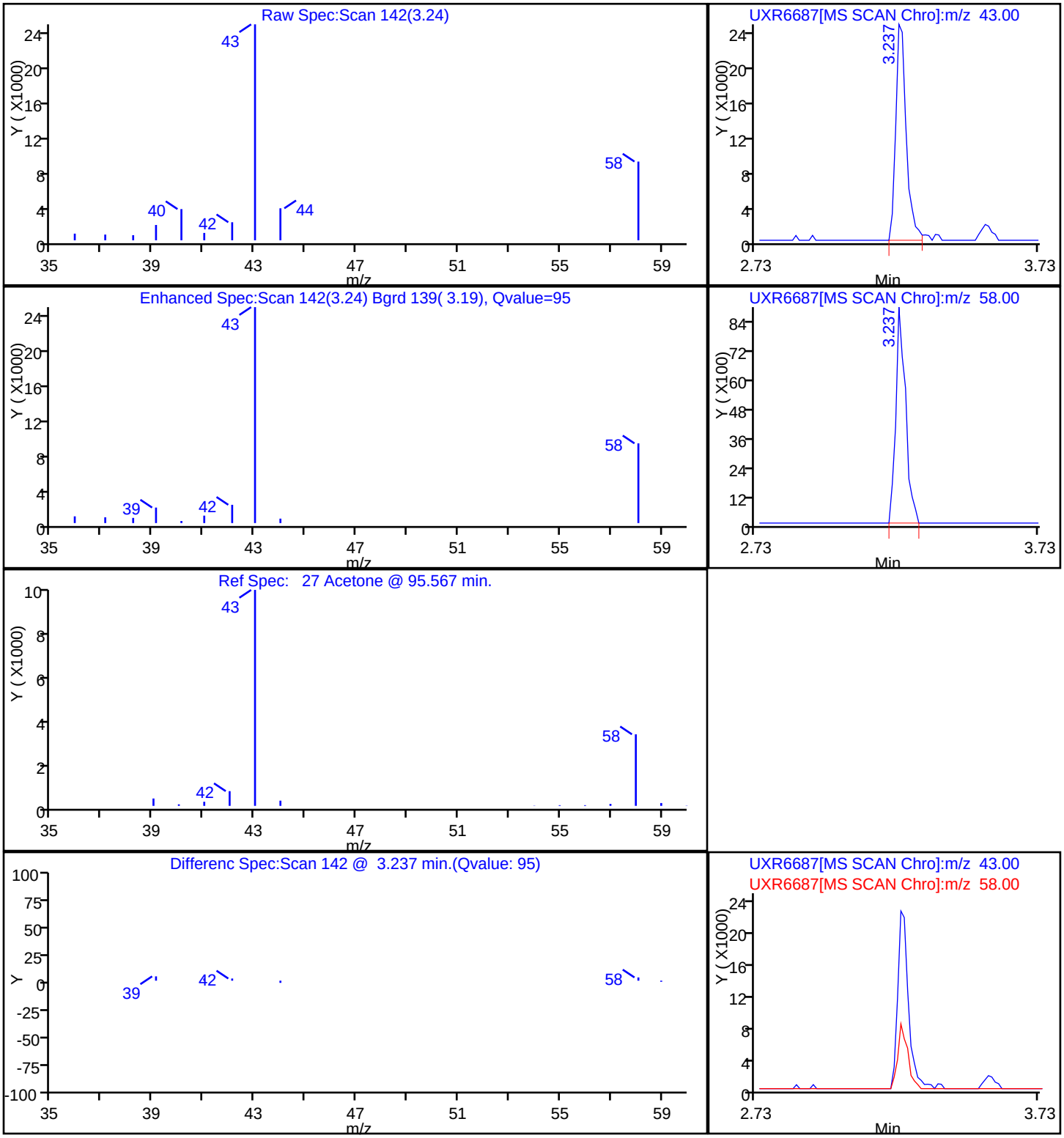


Report Date: 30-Jul-2013 11:08:29 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6687.D		
Injection Date:	29-Jul-2013 16:43:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	6
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

27 Acetone



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-95231/4

Matrix: Water | Lab File ID: UXR6658.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/27/2013 13:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95231 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	22.3		10	1.1
71-43-2	Benzene	10.7		1.0	0.13
75-27-4	Bromodichloromethane	10.7		1.0	0.15
75-25-2	Bromoform	9.66		1.0	0.64
74-83-9	Bromomethane	11.0		1.0	0.41
78-93-3	2-Butanone (MEK)	20.2		10	0.57
75-15-0	Carbon disulfide	11.1		5.0	0.13
56-23-5	Carbon tetrachloride	10.6		1.0	0.13
108-90-7	Chlorobenzene	9.53		1.0	0.15
75-00-3	Chloroethane	12.4		1.0	0.29
67-66-3	Chloroform	10.4		1.0	0.16
74-87-3	Chloromethane	9.35		1.0	0.30
75-34-3	1,1-Dichloroethane	10.5		1.0	0.15
107-06-2	1,2-Dichloroethane	9.93		1.0	0.22
75-35-4	1,1-Dichloroethene	10.2		1.0	0.19
78-87-5	1,2-Dichloropropane	10.4		1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	9.64		1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	9.69		1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	7.90		1.0	0.19
100-41-4	Ethylbenzene	9.82		1.0	0.17
591-78-6	2-Hexanone	17.4		10	0.41
75-09-2	Methylene Chloride	10.6		5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	18.8		10	0.32
100-42-5	Styrene	10.3		1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	8.64		1.0	0.18
127-18-4	Tetrachloroethene	9.40		1.0	0.29
108-88-3	Toluene	9.56		1.0	0.13
79-01-6	Trichloroethene	10.8		1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	9.63		1.0	0.096
75-01-4	Vinyl chloride	9.61		1.0	0.22
1330-20-7	Xylenes, Total	29.9		2.0	0.28
71-55-6	1,1,1-Trichloroethane	10.3		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.41		1.0	0.27
110-82-7	Cyclohexane	10.2		1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	7.26		1.0	0.67
106-93-4	1,2-Dibromoethane	9.40		1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton
Job No.: 240-27035-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 240-95231/4
Matrix: Water
Lab File ID: UXR6658.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 07/27/2013 13:54
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 95231
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	8.93		1.0	0.31
156-59-2	cis-1,2-Dichloroethene	10.7		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	10.4		1.0	0.19
98-82-8	Isopropylbenzene	9.98		1.0	0.13
79-20-9	Methyl acetate	10.1		10	0.38
1634-04-4	Methyl tert-butyl ether	9.76		1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	11.5		1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	6.07		1.0	0.15
95-50-1	1,2-Dichlorobenzene	8.85		1.0	0.13
541-73-1	1,3-Dichlorobenzene	9.03		1.0	0.14
106-46-7	1,4-Dichlorobenzene	8.83		1.0	0.13
75-69-4	Trichlorofluoromethane	10.4		1.0	0.21
124-48-1	Dibromochloromethane	9.33		1.0	0.18
108-87-2	Methylcyclohexane	10.3		1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-117
2037-26-5	Toluene-d8 (Surr)	85		74-115
1868-53-7	Dibromofluoromethane (Surr)	92		75-121

Report Date: 29-Jul-2013 10:58:52 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6658.D
Lims ID: LCS Client ID:
Inject. Date: 27-Jul-2013 13:54:30 Dil. Factor: 1.0000
Sample Type: LCS
Sample ID: 240-0021993-004
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 3
Lims Batch ID: 95231 Lims Sample ID: 4
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130727-21993.b\8260_17.m
Last Update: 29-Jul-2013 10:58:51 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK027

First Level Reviewer: williamsla Date: 27-Jul-2013 14:24:18

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1363524	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	1167598	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	79	708436	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	61	285251	8.16	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	361689	7.64	
$ 8 Toluene-d8 (Surr)	98	7.151	7.151	0.0	93	1198146	7.61	
$ 9 4-Bromofluorobenzene (Surr)	95	9.594	9.594	0.0	95	513443	8.71	
14 Dichlorodifluoromethane	85	1.648	1.648	0.0	87	389748	8.93	
15 Chloromethane	50	1.826	1.826	0.0	89	562910	9.35	
17 Vinyl chloride	62	1.957	1.945	0.012	83	490241	9.61	
18 Bromomethane	94	2.312	2.312	0.0	89	173629	11.0	
19 Chloroethane	64	2.419	2.419	0.0	94	192053	12.4	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	86	462841	10.4	
22 Ethyl ether	59	2.953	2.953	0.0	93	376200	10.4	
24 Acrolein	56	3.095	3.083	0.012	90	137952	21.1	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	385790	10.2	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.190	0.0	83	368780	11.5	
27 Acetone	43	3.237	3.237	0.0	97	290661	22.3	
28 Iodomethane	142	3.332	3.332	0.0	98	648226	11.7	
29 Carbon disulfide	76	3.392	3.392	0.0	99	1173690	11.1	
30 Acetonitrile	41	3.510	3.510	0.0	98	164303	34.2	
32 Methyl acetate	43	3.546	3.534	0.012	98	329548	10.1	
33 Methylene Chloride	84	3.641	3.641	0.0	93	490202	10.6	
34 2-Methyl-2-propanol	59	3.736	3.736	0.0	95	497266	198.6	
36 Acrylonitrile	53	3.878	3.878	0.0	98	481823	28.6	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	91	992380	9.76	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	94	425859	10.4	
38 Hexane	86	4.115	4.115	0.0	92	113050	11.1	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	746745	10.5	
41 Isopropyl ether	87	4.305	4.305	0.0	81	352714	10.2	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
40 Vinyl acetate	86	4.305	4.305	0.0	86	56316	8.90	
44 2,2-Dichloropropane	77	4.779	4.767	0.012	62	406222	10.5	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	70	447938	10.7	
46 2-Butanone (MEK)	43	4.791	4.779	0.012	94	361780	20.2	
50 Chlorobromomethane	128	4.993	4.993	0.0	93	208548	10.4	
51 Tetrahydrofuran	42	5.028	5.028	0.0	87	99767	9.13	
52 Chloroform	83	5.052	5.052	0.0	70	717035	10.4	
53 1,1,1-Trichloroethane	97	5.218	5.206	0.012	92	571377	10.3	
54 Cyclohexane	56	5.253	5.253	0.0	92	811604	10.2	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	92	547861	10.4	
55 Carbon tetrachloride	117	5.348	5.348	0.0	80	544238	10.6	
57 Isobutyl alcohol	41	5.431	5.431	0.0	91	550203	397.9	
58 Benzene	78	5.538	5.538	0.0	97	1714342	10.7	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	568727	9.93	
63 Trichloroethene	130	6.083	6.083	0.0	93	438325	10.8	
65 Methylcyclohexane	83	6.250	6.250	0.0	92	678429	10.3	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	91	414420	10.4	
69 Dibromomethane	93	6.392	6.392	0.0	84	228752	11.0	
70 Dichlorobromomethane	83	6.522	6.522	0.0	94	500261	10.7	
72 2-Chloroethyl vinyl ether	63	6.759	6.759	0.0	92	181132	8.35	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	90	511844	9.69	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	98	658922	18.8	
75 Toluene	91	7.210	7.210	0.0	98	1699660	9.56	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	441691	7.90	
78 1,1,2-Trichloroethane	97	7.578	7.566	0.012	88	328365	9.41	
79 Tetrachloroethene	164	7.708	7.696	0.012	92	375739	9.40	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	586377	9.20	
82 2-Hexanone	43	7.779	7.779	0.0	95	451001	17.4	
84 Chlorodibromomethane	129	7.945	7.945	0.0	88	333051	9.33	
85 Ethylene Dibromide	107	8.064	8.052	0.012	98	331341	9.40	
87 Chlorobenzene	112	8.503	8.503	0.0	96	1159184	9.53	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	83	400723	9.82	
89 Ethylbenzene	106	8.586	8.586	0.0	98	613280	9.82	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1566010	20.0	
91 o-Xylene	106	9.084	9.084	0.0	88	725780	9.86	
92 Styrene	104	9.096	9.096	0.0	93	1238050	10.3	
93 Bromoform	173	9.297	9.297	0.0	94	213965	9.66	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	1846823	9.98	
96 Cyclohexanone	55	9.546	9.546	0.0	87	841526	100.0	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	83	408632	8.64	
98 Bromobenzene	156	9.748	9.748	0.0	75	552785	9.45	
100 1,2,3-Trichloropropane	110	9.771	9.771	0.0	76	145859	8.52	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.771	0.0	78	202590	15.2	
101 N-Propylbenzene	120	9.831	9.831	0.0	95	561889	9.80	
102 2-Chlorotoluene	126	9.926	9.926	0.0	97	483832	9.81	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	80	1623617	9.63	
104 4-Chlorotoluene	126	10.032	10.032	0.0	96	513456	9.75	
105 tert-Butylbenzene	119	10.317	10.317	0.0	91	1422062	9.16	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1641177	9.64	
107 sec-Butylbenzene	105	10.530	10.530	0.0	94	1859399	9.24	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	984588	9.03	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	94	1742692	9.79	

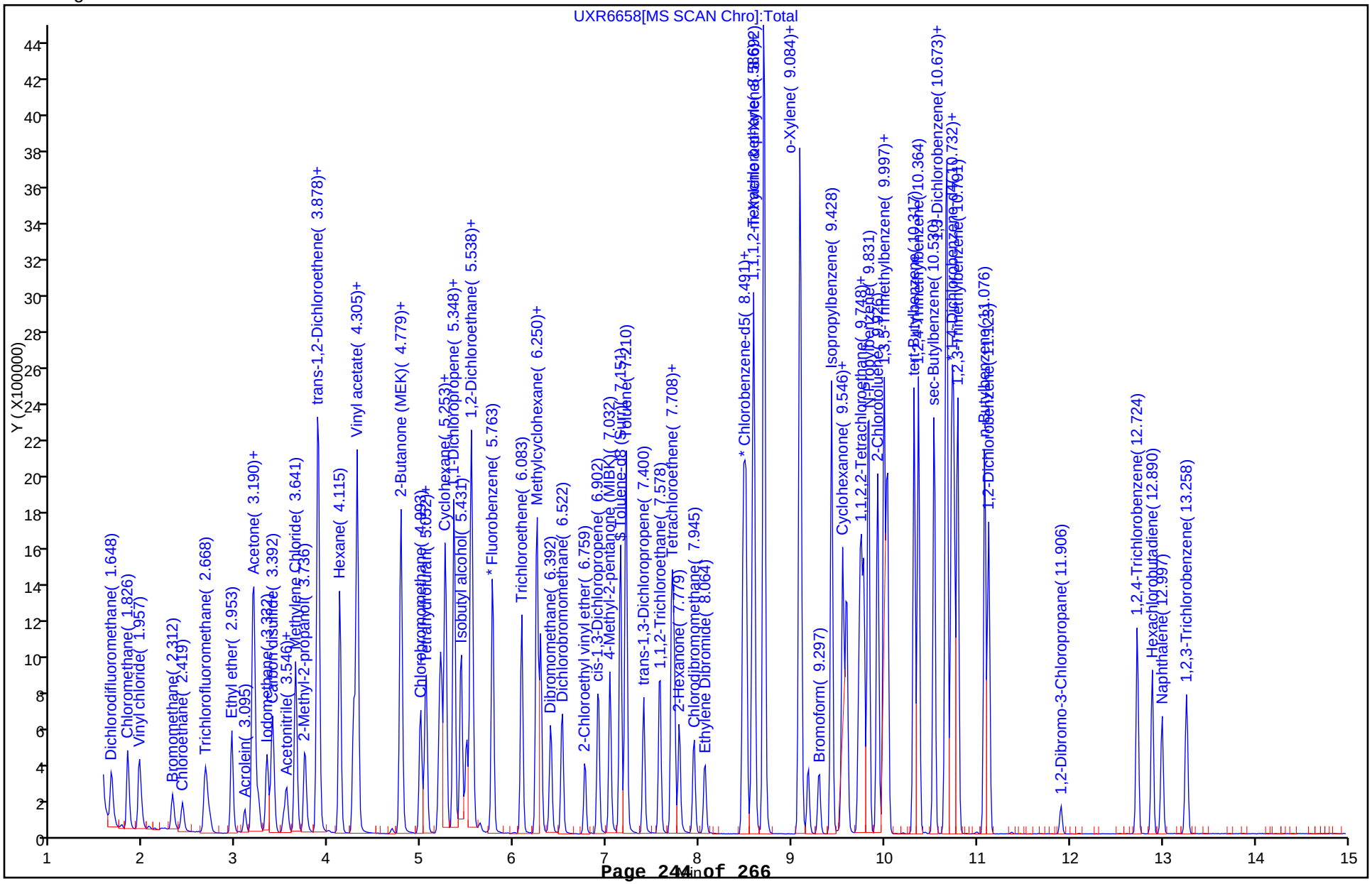
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	93	1002918	8.83	
111 1,2,3-Trimethylbenzene	105	10.791	10.791	0.0	87	1642203	9.18	
112 n-Butylbenzene	91	11.076	11.076	0.0	96	1315620	8.98	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	917271	8.85	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	75	55406	7.26	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	90	477812	6.07	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	89	248235	6.21	
118 Naphthalene	128	12.997	12.997	0.0	100	666988	4.77	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	98	358233	5.10	
S 121 Trihalomethanes, Total	1				0		40.1	
S 122 1,2-Dichloroethene, Total	96				0		21.1	
S 124 Xylenes, Total	106				0		29.9	

Report Date: 29-Jul-2013 10:58:52 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130727-21993.b\UXR6658.D		
Injection Date:	27-Jul-2013 13:54:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95231	Lims Sample ID:	4
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-95368/4

Matrix: Water | Lab File ID: UXR6685.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/29/2013 15:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	24.3		10	1.1
71-43-2	Benzene	10.3		1.0	0.13
75-27-4	Bromodichloromethane	10.5		1.0	0.15
75-25-2	Bromoform	9.09		1.0	0.64
74-83-9	Bromomethane	12.0		1.0	0.41
78-93-3	2-Butanone (MEK)	18.8		10	0.57
75-15-0	Carbon disulfide	10.7		5.0	0.13
56-23-5	Carbon tetrachloride	10.5		1.0	0.13
108-90-7	Chlorobenzene	9.39		1.0	0.15
75-00-3	Chloroethane	14.0		1.0	0.29
67-66-3	Chloroform	10.3		1.0	0.16
74-87-3	Chloromethane	9.83		1.0	0.30
75-34-3	1,1-Dichloroethane	10.4		1.0	0.15
107-06-2	1,2-Dichloroethane	10.1		1.0	0.22
75-35-4	1,1-Dichloroethene	10.0		1.0	0.19
78-87-5	1,2-Dichloropropane	10.4		1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	9.35		1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	9.71		1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	7.90		1.0	0.19
100-41-4	Ethylbenzene	9.65		1.0	0.17
591-78-6	2-Hexanone	17.5		10	0.41
75-09-2	Methylene Chloride	9.20		5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	19.4		10	0.32
100-42-5	Styrene	10.1		1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	8.45		1.0	0.18
127-18-4	Tetrachloroethene	9.69		1.0	0.29
108-88-3	Toluene	9.59		1.0	0.13
79-01-6	Trichloroethene	10.5		1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	9.30		1.0	0.096
75-01-4	Vinyl chloride	9.86		1.0	0.22
1330-20-7	Xylenes, Total	29.4		2.0	0.28
71-55-6	1,1,1-Trichloroethane	10.2		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.84		1.0	0.27
110-82-7	Cyclohexane	9.91		1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	7.26		1.0	0.67
106-93-4	1,2-Dibromoethane	9.80		1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-95368/4

Matrix: Water | Lab File ID: UXR6685.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/29/2013 15:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	9.11		1.0	0.31
156-59-2	cis-1,2-Dichloroethene	10.2		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	9.80		1.0	0.19
98-82-8	Isopropylbenzene	9.68		1.0	0.13
79-20-9	Methyl acetate	10.8		10	0.38
1634-04-4	Methyl tert-butyl ether	9.42		1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	11.3		1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	6.00		1.0	0.15
95-50-1	1,2-Dichlorobenzene	8.63		1.0	0.13
541-73-1	1,3-Dichlorobenzene	8.94		1.0	0.14
106-46-7	1,4-Dichlorobenzene	8.62		1.0	0.13
75-69-4	Trichlorofluoromethane	10.6		1.0	0.21
124-48-1	Dibromochloromethane	9.48		1.0	0.18
108-87-2	Methylcyclohexane	9.83		1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
2037-26-5	Toluene-d8 (Surr)	86		74-115
1868-53-7	Dibromofluoromethane (Surr)	93		75-121

Report Date: 30-Jul-2013 11:08:28 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6685.D
Lims ID: LCS Client ID:
Inject. Date: 29-Jul-2013 15:59:30 Dil. Factor: 1.0000
Sample Type: LCS
Sample ID: 240-0022028-004
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 3
Lims Batch ID: 95368 Lims Sample ID: 4
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m
Last Update: 30-Jul-2013 11:08:27 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK021

First Level Reviewer: williamsla Date: 29-Jul-2013 16:20:51

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1241281	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	83	1070581	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	83	652602	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	65	264778	8.32	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.479	0.011	0	339036	7.87	
$ 8 Toluene-d8 (Surr)	98	7.151	7.139	0.012	93	1105447	7.66	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.582	0.0	93	452860	8.37	
14 Dichlorodifluoromethane	85	1.648	1.648	0.0	87	361961	9.11	
15 Chloromethane	50	1.826	1.826	0.0	89	539004	9.83	
17 Vinyl chloride	62	1.957	1.945	0.012	84	457823	9.86	
18 Bromomethane	94	2.312	2.313	-0.001	89	172444	12.0	
19 Chloroethane	64	2.419	2.419	0.0	95	196392	14.0	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	87	429141	10.6	
22 Ethyl ether	59	2.953	2.953	0.0	94	347761	10.6	
24 Acrolein	56	3.095	3.083	0.012	95	133705	22.5	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	87	344711	10.0	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.190	0.0	79	331398	11.3	
27 Acetone	43	3.237	3.237	0.0	97	287225	24.3	
28 Iodomethane	142	3.332	3.332	0.0	98	568322	11.3	
29 Carbon disulfide	76	3.391	3.392	-0.001	99	1021376	10.7	
30 Acetonitrile	41	3.510	3.510	0.0	99	152048	34.8	
32 Methyl acetate	43	3.546	3.534	0.012	98	318282	10.8	
33 Methylene Chloride	84	3.640	3.641	-0.001	94	395246	9.20	
34 2-Methyl-2-propanol	59	3.747	3.736	0.011	95	461648	202.6	
36 Acrylonitrile	53	3.878	3.878	0.0	99	447198	29.2	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	91	871993	9.42	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	94	366351	9.80	
38 Hexane	86	4.115	4.115	0.0	95	96263	10.3	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	672389	10.4	
41 Isopropyl ether	87	4.305	4.305	0.0	82	303779	9.67	

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
40 Vinyl acetate	86	4.305	4.305	0.0	84	45637	7.92	
44 2,2-Dichloropropane	77	4.779	4.767	0.012	62	366511	10.4	
46 2-Butanone (MEK)	43	4.791	4.779	0.012	94	307832	18.8	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	72	385143	10.2	
50 Chlorobromomethane	128	4.992	4.993	-0.001	93	185216	10.2	
51 Tetrahydrofuran	42	5.028	5.028	0.0	91	93944	9.45	
52 Chloroform	83	5.052	5.052	0.0	70	648500	10.3	
53 1,1,1-Trichloroethane	97	5.218	5.206	0.012	92	514555	10.2	
54 Cyclohexane	56	5.253	5.253	0.0	92	716940	9.91	
55 Carbon tetrachloride	117	5.348	5.348	0.0	78	489209	10.5	
56 1,1-Dichloropropene	75	5.348	5.348	0.0	94	481871	10.0	
57 Isobutyl alcohol	41	5.431	5.431	0.0	92	501842	395.8	
58 Benzene	78	5.538	5.538	0.0	97	1492802	10.3	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	73	524257	10.1	
63 Trichloroethene	130	6.083	6.084	-0.001	92	388351	10.5	
65 Methylcyclohexane	83	6.249	6.250	-0.001	92	589133	9.83	
66 1,2-Dichloropropane	63	6.285	6.285	0.0	91	378133	10.4	
69 Dibromomethane	93	6.392	6.392	0.0	83	203206	10.7	
70 Dichlorobromomethane	83	6.522	6.510	0.012	94	447484	10.5	
72 2-Chloroethyl vinyl ether	63	6.759	6.759	0.0	93	166066	8.41	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	90	466750	9.71	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	98	618171	19.4	
75 Toluene	91	7.210	7.210	0.0	98	1563089	9.59	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	405237	7.90	
78 1,1,2-Trichloroethane	97	7.566	7.566	0.0	87	314849	9.84	
79 Tetrachloroethene	164	7.708	7.696	0.012	92	355038	9.69	
81 1,3-Dichloropropane	76	7.732	7.732	0.0	92	548821	9.39	
82 2-Hexanone	43	7.779	7.779	0.0	96	414425	17.5	
84 Chlorodibromomethane	129	7.945	7.933	0.012	89	310207	9.48	
85 Ethylene Dibromide	107	8.064	8.052	0.012	97	316585	9.80	
87 Chlorobenzene	112	8.502	8.503	-0.001	96	1046425	9.39	
88 1,1,1,2-Tetrachloroethane	131	8.574	8.574	0.0	82	358840	9.59	
89 Ethylbenzene	106	8.585	8.586	-0.001	98	552642	9.65	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1424303	19.8	
91 o-Xylene	106	9.084	9.084	0.0	95	647725	9.60	
92 Styrene	104	9.095	9.096	-0.001	93	1108388	10.1	
93 Bromoform	173	9.297	9.285	0.012	98	184640	9.09	
95 Isopropylbenzene	105	9.427	9.428	-0.001	96	1641302	9.68	
96 Cyclohexanone	55	9.546	9.546	0.0	92	273980	35.3	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	83	368402	8.45	
98 Bromobenzene	156	9.748	9.748	0.0	83	483507	8.97	
100 1,2,3-Trichloropropane	110	9.771	9.772	-0.001	72	130607	8.28	
99 trans-1,4-Dichloro-2-butene	53	9.771	9.772	-0.001	55	125100	10.2	
101 N-Propylbenzene	120	9.831	9.831	0.0	96	504182	9.55	
102 2-Chlorotoluene	126	9.926	9.926	0.0	96	411463	9.05	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	83	1444317	9.30	
104 4-Chlorotoluene	126	10.032	10.032	0.0	96	449187	9.26	
105 tert-Butylbenzene	119	10.317	10.317	0.0	90	1261203	8.81	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1466522	9.35	
107 sec-Butylbenzene	105	10.530	10.530	0.0	93	1668014	9.00	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	898708	8.94	
109 4-Isopropyltoluene	119	10.673	10.673	0.0	96	1544061	9.41	

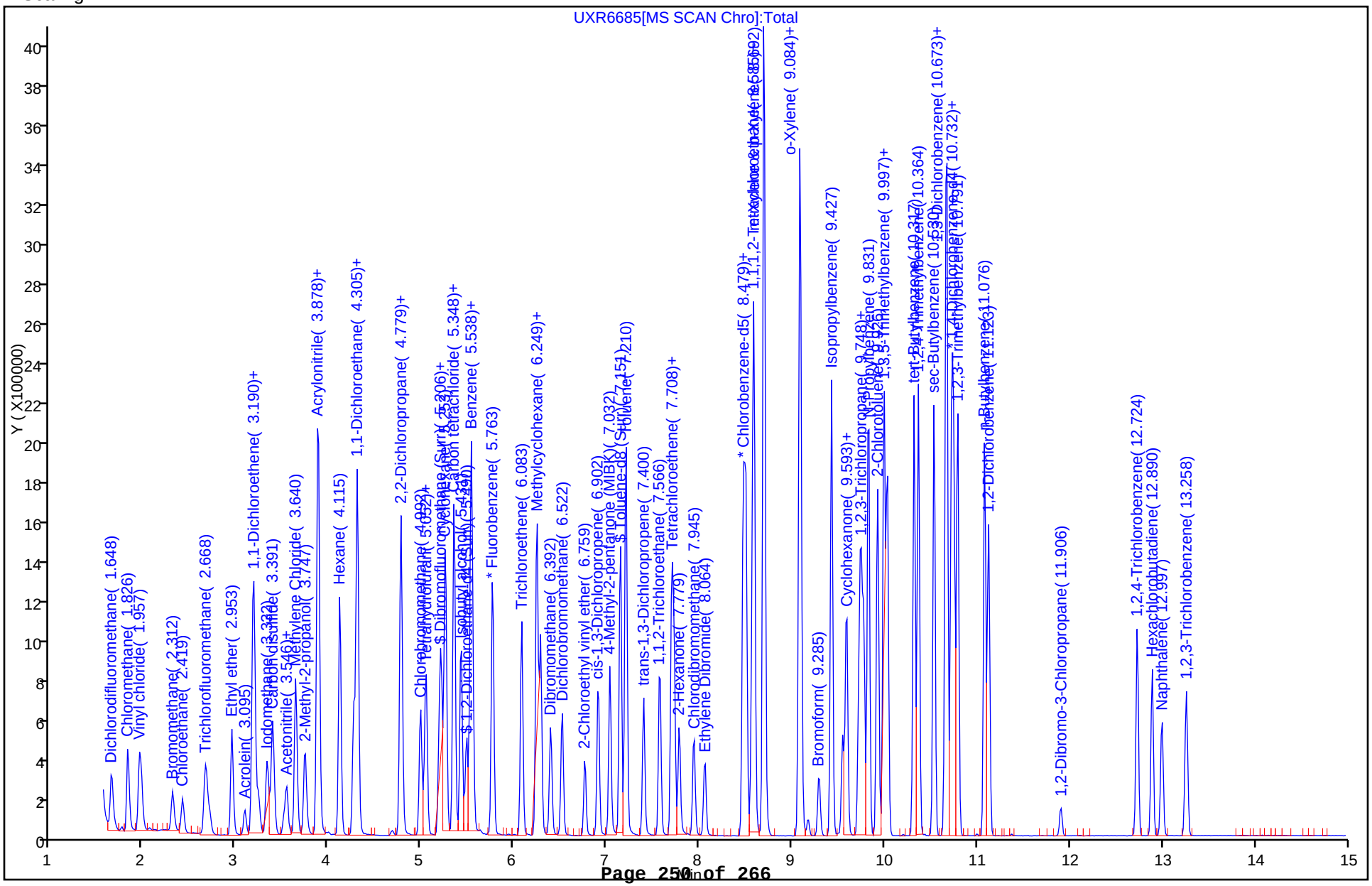
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	93	902240	8.62	
111 1,2,3-Trimethylbenzene	105	10.791	10.791	0.0	88	1464397	8.89	
112 n-Butylbenzene	91	11.076	11.076	0.0	95	1197684	8.87	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	823637	8.63	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	71	51069	7.26	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	92	435252	6.00	
117 Hexachlorobutadiene	225	12.890	12.890	0.0	92	227730	6.18	
118 Naphthalene	128	12.997	12.997	0.0	100	619036	4.80	
119 1,2,3-Trichlorobenzene	180	13.258	13.258	0.0	99	328023	5.07	
S 121 Trihalomethanes, Total	1				0		39.4	
S 122 1,2-Dichloroethene, Total	96				0		20.0	
S 124 Xylenes, Total	106				0		29.4	

Report Date: 30-Jul-2013 11:08:28 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6685.D		
Injection Date:	29-Jul-2013 15:59:30	Limit Group:	MSV 8260B ICAL
Client ID:		Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	4
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-007 MS | Lab Sample ID: 240-27035-7 MS

Matrix: Water | Lab File ID: UXR6708.D

Analysis Method: 8260B | Date Collected: 07/18/2013 15:15

Sample wt/vol: 5(mL) | Date Analyzed: 07/30/2013 00:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	17.5		10	1.1
71-43-2	Benzene	9.90		1.0	0.13
75-27-4	Bromodichloromethane	10.6		1.0	0.15
75-25-2	Bromoform	9.21		1.0	0.64
74-83-9	Bromomethane	10.7		1.0	0.41
78-93-3	2-Butanone (MEK)	17.9		10	0.57
75-15-0	Carbon disulfide	10.2		5.0	0.13
56-23-5	Carbon tetrachloride	10.0		1.0	0.13
108-90-7	Chlorobenzene	8.91		1.0	0.15
75-00-3	Chloroethane	13.2		1.0	0.29
67-66-3	Chloroform	10.1		1.0	0.16
74-87-3	Chloromethane	9.02		1.0	0.30
75-34-3	1,1-Dichloroethane	9.98		1.0	0.15
107-06-2	1,2-Dichloroethane	10.0		1.0	0.22
75-35-4	1,1-Dichloroethene	9.21		1.0	0.19
78-87-5	1,2-Dichloropropane	9.86		1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	8.33		1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	8.70		1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	7.30		1.0	0.19
100-41-4	Ethylbenzene	8.80		1.0	0.17
591-78-6	2-Hexanone	17.4		10	0.41
75-09-2	Methylene Chloride	8.55		5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2		10	0.32
100-42-5	Styrene	9.59		1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	7.65		1.0	0.18
127-18-4	Tetrachloroethene	8.85		1.0	0.29
108-88-3	Toluene	8.86		1.0	0.13
79-01-6	Trichloroethene	9.97		1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	8.09		1.0	0.096
75-01-4	Vinyl chloride	9.75		1.0	0.22
1330-20-7	Xylenes, Total	28.2		2.0	0.28
71-55-6	1,1,1-Trichloroethane	10.2		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.42		1.0	0.27
110-82-7	Cyclohexane	8.47		1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	6.78		1.0	0.67
106-93-4	1,2-Dibromoethane	9.10		1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-007 MS | Lab Sample ID: 240-27035-7 MS

Matrix: Water | Lab File ID: UXR6708.D

Analysis Method: 8260B | Date Collected: 07/18/2013 15:15

Sample wt/vol: 5(mL) | Date Analyzed: 07/30/2013 00:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	8.57		1.0	0.31
156-59-2	cis-1,2-Dichloroethene	9.56		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	9.46		1.0	0.19
98-82-8	Isopropylbenzene	8.87		1.0	0.13
79-20-9	Methyl acetate	9.25	J	10	0.38
1634-04-4	Methyl tert-butyl ether	8.75		1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10.2		1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	5.11		1.0	0.15
95-50-1	1,2-Dichlorobenzene	8.09		1.0	0.13
541-73-1	1,3-Dichlorobenzene	8.20		1.0	0.14
106-46-7	1,4-Dichlorobenzene	8.00		1.0	0.13
75-69-4	Trichlorofluoromethane	10.3		1.0	0.21
124-48-1	Dibromochloromethane	9.31		1.0	0.18
108-87-2	Methylcyclohexane	8.35		1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129
460-00-4	4-Bromofluorobenzene (Surr)	101		66-117
2037-26-5	Toluene-d8 (Surr)	82		74-115
1868-53-7	Dibromofluoromethane (Surr)	93		75-121

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6708.D
Lims ID: 240-27035-E-7 MS
Client ID: GW-7097-071813-SK-007
Inject. Date: 30-Jul-2013 00:24:30
Dil. Factor: 1.0000
Sample Type: MS
Sample ID: 240-0022028-027
Misc. Info.:
Operator: 1644
Instrument ID: A3UX17
Purge Vol: 5.000 mL
ALS Bottle#: 26
Lims Batch ID: 95368
Lims Sample ID: 27
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m
Last Update: 30-Jul-2013 11:08:27
Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard
Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE
ID Type: Deconvolution ID
Column Type: DB-624
Column Dia: 0.18 mm
Process Host: XAWRK021

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1044257	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	85	927979	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	91	640388	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	60	222613	8.31	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.491	5.479	0.012	0	289605	7.99	
$ 8 Toluene-d8 (Surr)	98	7.151	7.139	0.012	92	909018	7.26	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.582	0.0	92	419844	8.96	
14 Dichlorodifluoromethane	85	1.648	1.648	0.0	86	286401	8.57	
15 Chloromethane	50	1.826	1.826	0.0	88	416283	9.02	
17 Vinyl chloride	62	1.957	1.945	0.012	83	380702	9.75	
18 Bromomethane	94	2.313	2.313	0.0	91	128877	10.7	
19 Chloroethane	64	2.419	2.419	0.0	94	156260	13.2	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	87	349829	10.3	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	265683	9.21	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.190	3.190	0.0	80	250453	10.2	
27 Acetone	43	3.237	3.237	0.0	99	176624	17.5	
29 Carbon disulfide	76	3.392	3.392	0.0	100	826114	10.2	
32 Methyl acetate	43	3.546	3.534	0.012	99	230048	9.25	
33 Methylene Chloride	84	3.641	3.641	0.0	94	311863	8.55	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	91	681613	8.75	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	93	297486	9.46	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	86	544004	9.98	
46 2-Butanone (MEK)	43	4.791	4.779	0.012	94	245490	17.9	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	71	305077	9.56	
52 Chloroform	83	5.052	5.052	0.0	71	533719	10.1	
53 1,1,1-Trichloroethane	97	5.218	5.206	0.012	91	432278	10.2	
54 Cyclohexane	56	5.253	5.253	0.0	93	515167	8.47	
55 Carbon tetrachloride	117	5.348	5.348	0.0	82	394583	10.0	
58 Benzene	78	5.538	5.538	0.0	95	1210608	9.90	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	439729	10.0	
63 Trichloroethene	130	6.084	6.084	0.0	93	310274	9.97	
65 Methylcyclohexane	83	6.250	6.250	0.0	92	420847	8.35	

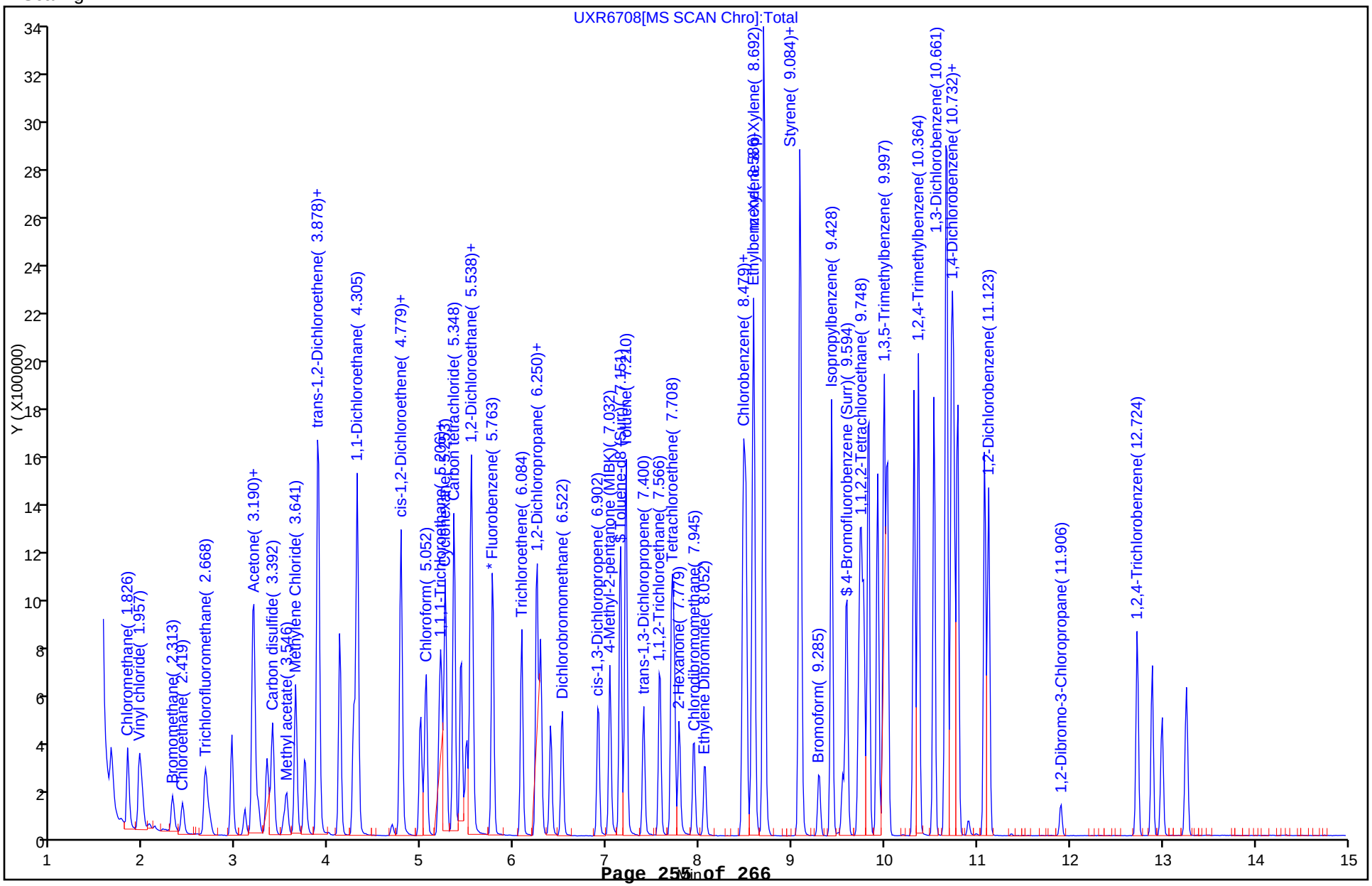
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
66 1,2-Dichloropropane	63	6.285	6.285	0.0	88	300777	9.86	
70 Dichlorobromomethane	83	6.522	6.510	0.012	93	380060	10.6	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	89	351825	8.70	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	98	515631	19.2	
75 Toluene	91	7.210	7.210	0.0	98	1252560	8.86	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	94	323155	7.30	
78 1,1,2-Trichloroethane	97	7.566	7.566	0.0	88	261350	9.42	
79 Tetrachloroethene	164	7.708	7.696	0.012	91	281179	8.85	
82 2-Hexanone	43	7.779	7.779	0.0	98	356666	17.4	
84 Chlorodibromomethane	129	7.945	7.933	0.012	88	263960	9.31	
85 Ethylene Dibromide	107	8.064	8.052	0.012	97	254913	9.10	
87 Chlorobenzene	112	8.503	8.503	0.0	96	861064	8.91	
89 Ethylbenzene	106	8.586	8.586	0.0	98	436729	8.80	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1170148	18.8	
91 o-Xylene	106	9.084	9.084	0.0	88	547781	9.37	
92 Styrene	104	9.096	9.096	0.0	93	912255	9.59	
93 Bromoform	173	9.297	9.285	0.012	98	162063	9.21	
95 Isopropylbenzene	105	9.428	9.428	0.0	95	1304384	8.87	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	78	327223	7.65	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	81	1232837	8.09	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1281807	8.33	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	98	809000	8.20	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	92	821967	8.00	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	97	758061	8.09	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	75	46808	6.78	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	92	359568	5.11	
S 124 Xylenes, Total	106				0		28.2	

Report Date: 30-Jul-2013 11:08:38 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6708.D		
Injection Date:	30-Jul-2013 00:24:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-007	Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	27
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-007 MSD | Lab Sample ID: 240-27035-7 MSD

Matrix: Water | Lab File ID: UXR6709.D

Analysis Method: 8260B | Date Collected: 07/18/2013 15:15

Sample wt/vol: 5(mL) | Date Analyzed: 07/30/2013 00:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	15.9		10	1.1
71-43-2	Benzene	9.89		1.0	0.13
75-27-4	Bromodichloromethane	10.3		1.0	0.15
75-25-2	Bromoform	8.98		1.0	0.64
74-83-9	Bromomethane	11.0		1.0	0.41
78-93-3	2-Butanone (MEK)	17.3		10	0.57
75-15-0	Carbon disulfide	10.4		5.0	0.13
56-23-5	Carbon tetrachloride	10.0		1.0	0.13
108-90-7	Chlorobenzene	9.07		1.0	0.15
75-00-3	Chloroethane	12.8		1.0	0.29
67-66-3	Chloroform	10.1		1.0	0.16
74-87-3	Chloromethane	8.30		1.0	0.30
75-34-3	1,1-Dichloroethane	10.1		1.0	0.15
107-06-2	1,2-Dichloroethane	10.1		1.0	0.22
75-35-4	1,1-Dichloroethene	9.60		1.0	0.19
78-87-5	1,2-Dichloropropane	9.77		1.0	0.18
95-63-6	1,2,4-Trimethylbenzene	8.83		1.0	0.12
10061-01-5	cis-1,3-Dichloropropene	8.60		1.0	0.14
10061-02-6	trans-1,3-Dichloropropene	7.30		1.0	0.19
100-41-4	Ethylbenzene	9.15		1.0	0.17
591-78-6	2-Hexanone	16.4		10	0.41
75-09-2	Methylene Chloride	8.47		5.0	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	18.8		10	0.32
100-42-5	Styrene	9.80		1.0	0.11
79-34-5	1,1,2,2-Tetrachloroethane	7.53		1.0	0.18
127-18-4	Tetrachloroethene	8.99		1.0	0.29
108-88-3	Toluene	9.00		1.0	0.13
79-01-6	Trichloroethene	10.3		1.0	0.17
108-67-8	1,3,5-Trimethylbenzene	8.75		1.0	0.096
75-01-4	Vinyl chloride	9.60		1.0	0.22
1330-20-7	Xylenes, Total	28.4		2.0	0.28
71-55-6	1,1,1-Trichloroethane	10.0		1.0	0.22
79-00-5	1,1,2-Trichloroethane	8.86		1.0	0.27
110-82-7	Cyclohexane	8.67		1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	6.45		1.0	0.67
106-93-4	1,2-Dibromoethane	8.94		1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-27035-1

SDG No.:

Client Sample ID: GW-7097-071813-SK-007 MSD | Lab Sample ID: 240-27035-7 MSD

Matrix: Water | Lab File ID: UXR6709.D

Analysis Method: 8260B | Date Collected: 07/18/2013 15:15

Sample wt/vol: 5(mL) | Date Analyzed: 07/30/2013 00:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 95368 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	8.02		1.0	0.31
156-59-2	cis-1,2-Dichloroethene	9.81		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	9.60		1.0	0.19
98-82-8	Isopropylbenzene	9.30		1.0	0.13
79-20-9	Methyl acetate	8.98	J	10	0.38
1634-04-4	Methyl tert-butyl ether	8.78		1.0	0.17
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.93		1.0	0.28
120-82-1	1,2,4-Trichlorobenzene	5.83		1.0	0.15
95-50-1	1,2-Dichlorobenzene	8.21		1.0	0.13
541-73-1	1,3-Dichlorobenzene	8.44		1.0	0.14
106-46-7	1,4-Dichlorobenzene	8.18		1.0	0.13
75-69-4	Trichlorofluoromethane	9.60		1.0	0.21
124-48-1	Dibromochloromethane	8.85		1.0	0.18
108-87-2	Methylcyclohexane	8.41		1.0	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129
460-00-4	4-Bromofluorobenzene (Surr)	95		66-117
2037-26-5	Toluene-d8 (Surr)	82		74-115
1868-53-7	Dibromofluoromethane (Surr)	95		75-121

Report Date: 30-Jul-2013 11:08:38 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6709.D
Lims ID: 240-27035-F-7 MSD Client ID: GW-7097-071813-SK-007
Inject. Date: 30-Jul-2013 00:45:30 Dil. Factor: 1.0000
Sample Type: MSD
Sample ID: 240-0022028-028
Misc. Info.:
Operator: 1644 Instrument ID: A3UX17
Purge Vol: 5.000 mL ALS Bottle#: 27
Lims Batch ID: 95368 Lims Sample ID: 28
Detector: MS SCAN

Method: \\NCCHROM\ChromData\A3UX17\20130729-22028.b\8260_17.m
Last Update: 30-Jul-2013 11:08:27 Calib Date: 02-Jul-2013 11:37:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCCHROM\ChromData\A3UX17\20130702-21310.b\UXR6129.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Column Type: DB-624 Column Dia: 0.18 mm
Process Host: XAWRK021

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.763	5.763	0.0	99	1131905	10.0	
* 2 Chlorobenzene-d5	117	8.479	8.479	0.0	82	1014025	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.720	10.720	0.0	82	658147	10.0	
$ 6 Dibromofluoromethane (Surr)	113	5.194	5.182	0.012	58	245149	8.45	
$ 7 1,2-Dichloroethane-d4 (Surr)	65	5.490	5.479	0.011	0	315141	8.02	
$ 8 Toluene-d8 (Surr)	98	7.151	7.139	0.012	93	995419	7.28	
$ 9 4-Bromofluorobenzene (Surr)	95	9.582	9.582	0.0	92	434691	8.49	
14 Dichlorodifluoromethane	85	1.660	1.648	0.012	87	290664	8.02	
15 Chloromethane	50	1.826	1.826	0.0	89	415253	8.30	
17 Vinyl chloride	62	1.957	1.945	0.012	83	406329	9.60	
18 Bromomethane	94	2.312	2.313	-0.001	90	143344	11.0	
19 Chloroethane	64	2.419	2.419	0.0	93	164465	12.8	
21 Trichlorofluoromethane	101	2.668	2.668	0.0	84	354905	9.60	
25 1,1-Dichloroethene	96	3.178	3.178	0.0	88	300272	9.60	
26 1,1,2-Trichloro-1,2,2-trifluoroe	151	3.202	3.190	0.012	82	265006	9.93	
27 Acetone	43	3.237	3.237	0.0	92	174659	15.9	
29 Carbon disulfide	76	3.391	3.392	-0.001	99	907895	10.4	
32 Methyl acetate	43	3.546	3.534	0.012	98	242002	8.98	
33 Methylene Chloride	84	3.640	3.641	-0.001	94	335254	8.47	
35 Methyl tert-butyl ether	73	3.878	3.878	0.0	91	740903	8.78	
37 trans-1,2-Dichloroethene	96	3.890	3.890	0.0	95	327090	9.60	
39 1,1-Dichloroethane	63	4.269	4.269	0.0	85	598726	10.1	
46 2-Butanone (MEK)	43	4.791	4.779	0.012	94	258084	17.3	
45 cis-1,2-Dichloroethene	96	4.779	4.779	0.0	71	339422	9.81	
52 Chloroform	83	5.052	5.052	0.0	70	577185	10.1	
53 1,1,1-Trichloroethane	97	5.218	5.206	0.012	92	462656	10.0	
54 Cyclohexane	56	5.253	5.253	0.0	93	571579	8.67	
55 Carbon tetrachloride	117	5.348	5.348	0.0	80	426926	10.0	
58 Benzene	78	5.538	5.538	0.0	95	1311092	9.89	
59 1,2-Dichloroethane	62	5.550	5.550	0.0	89	479430	10.1	
63 Trichloroethene	130	6.083	6.084	-0.001	93	345890	10.3	
65 Methylcyclohexane	83	6.249	6.250	-0.001	92	459561	8.41	

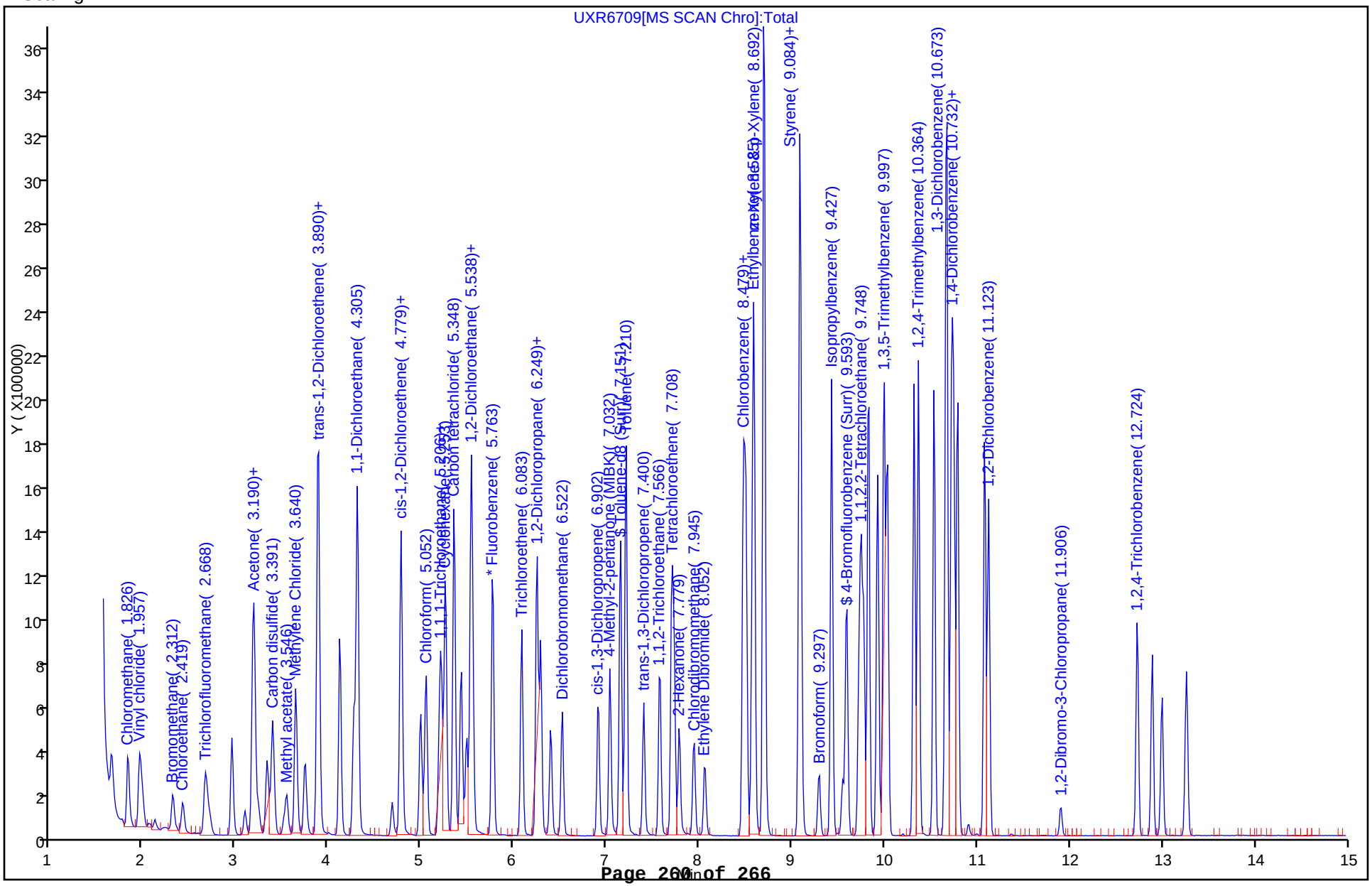
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
66 1,2-Dichloropropane	63	6.285	6.285	0.0	91	323148	9.77	
70 Dichlorobromomethane	83	6.522	6.510	0.012	93	401083	10.3	
73 cis-1,3-Dichloropropene	75	6.902	6.902	0.0	89	376940	8.60	
74 4-Methyl-2-pentanone (MIBK)	43	7.032	7.032	0.0	98	546524	18.8	
75 Toluene	91	7.210	7.210	0.0	97	1389673	9.00	
76 trans-1,3-Dichloropropene	75	7.400	7.400	0.0	91	353079	7.30	
78 1,1,2-Trichloroethane	97	7.578	7.566	0.012	89	268476	8.86	
79 Tetrachloroethene	164	7.708	7.696	0.012	91	312113	8.99	
82 2-Hexanone	43	7.779	7.779	0.0	96	367373	16.4	
84 Chlorodibromomethane	129	7.945	7.933	0.012	89	274248	8.85	
85 Ethylene Dibromide	107	8.064	8.052	0.012	96	273560	8.94	
87 Chlorobenzene	112	8.502	8.503	-0.001	92	957688	9.07	
89 Ethylbenzene	106	8.585	8.586	-0.001	98	496018	9.15	
90 m-Xylene & p-Xylene	106	8.692	8.692	0.0	100	1301943	19.2	
91 o-Xylene	106	9.084	9.084	0.0	89	590433	9.24	
92 Styrene	104	9.095	9.096	-0.001	93	1019103	9.80	
93 Bromoform	173	9.297	9.285	0.012	98	172664	8.98	
95 Isopropylbenzene	105	9.427	9.428	-0.001	96	1493794	9.30	
97 1,1,2,2-Tetrachloroethane	83	9.724	9.724	0.0	84	330988	7.53	
103 1,3,5-Trimethylbenzene	105	9.997	9.997	0.0	80	1371068	8.75	
106 1,2,4-Trimethylbenzene	105	10.364	10.364	0.0	76	1396715	8.83	
108 1,3-Dichlorobenzene	146	10.661	10.661	0.0	97	854999	8.44	
110 1,4-Dichlorobenzene	146	10.744	10.744	0.0	92	863013	8.18	
113 1,2-Dichlorobenzene	146	11.123	11.123	0.0	98	790195	8.21	
114 1,2-Dibromo-3-Chloropropane	157	11.906	11.906	0.0	73	45750	6.45	
116 1,2,4-Trichlorobenzene	180	12.724	12.724	0.0	92	425566	5.83	
S 124 Xylenes, Total	106				0		28.4	

Report Date: 30-Jul-2013 11:08:38 Chrom Revision: 2.0 01-Apr-2013 21:16:10

TestAmerica Canton

Data File:	\\NCCHROM\ChromData\A3UX17\20130729-22028.b\UXR6709.D		
Injection Date:	30-Jul-2013 00:45:30	Limit Group:	MSV 8260B ICAL
Client ID:	GW-7097-071813-SK-007	Instrument ID:	A3UX17
Lims Batch ID:	95368	Lims Sample ID:	28
Operator ID:	1644	Purge Vol:	5.000 mL
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Instrument ID: A3UX17 Start Date: 07/02/2013 09:20

Analysis Batch Number: 92260 End Date: 07/02/2013 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-92260/1		07/02/2013 09:20	1	BFB353.D	DB-624 0.18(mm)
STD8260 240-92260/2 IC		07/02/2013 09:46	1	UXR6124.D	DB-624 0.18(mm)
STD8260 240-92260/3 IC		07/02/2013 10:08	1	UXR6125.D	DB-624 0.18(mm)
STD8260 240-92260/4 ICIS		07/02/2013 10:31	1	UXR6126.D	DB-624 0.18(mm)
STD8260 240-92260/5 IC		07/02/2013 10:53	1	UXR6127.D	DB-624 0.18(mm)
STD8260 240-92260/6 IC		07/02/2013 11:15	1	UXR6128.D	DB-624 0.18(mm)
STD8260 240-92260/7 IC		07/02/2013 11:37	1	UXR6129.D	DB-624 0.18(mm)
ICV 240-92260/8		07/02/2013 12:00	1	UXR6130.D	DB-624 0.18(mm)
CCV 240-92260/9		07/02/2013 13:34	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 13:56	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 14:41	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 15:23	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 16:39	10		DB-624 0.18(mm)
ZZZZZ		07/02/2013 18:03	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 18:25	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 19:09	1		DB-624 0.18(mm)
ZZZZZ		07/02/2013 19:32	28.571		DB-624 0.18(mm)
ZZZZZ		07/02/2013 19:54	10		DB-624 0.18(mm)
ZZZZZ		07/02/2013 20:39	28.571		DB-624 0.18(mm)
ZZZZZ		07/02/2013 21:01	25		DB-624 0.18(mm)
ZZZZZ		07/02/2013 21:23	10		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Instrument ID: A3UX17 Start Date: 07/27/2013 12:36

Analysis Batch Number: 95231 End Date: 07/27/2013 23:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-95231/1		07/27/2013 12:36	1	BFB395.D	DB-624 0.18(mm)
CCVIS 240-95231/2		07/27/2013 13:10	1	UXR6656.D	DB-624 0.18(mm)
CCV 240-95231/3		07/27/2013 13:32	1	UXR6657.D	DB-624 0.18(mm)
LCS 240-95231/4		07/27/2013 13:54	1	UXR6658.D	DB-624 0.18(mm)
MB 240-95231/6		07/27/2013 14:39	1	UXR6660.D	DB-624 0.18(mm)
ZZZZZ		07/27/2013 15:21	10		DB-624 0.18(mm)
ZZZZZ		07/27/2013 16:05	5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 16:28	5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 16:50	5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 17:13	5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 17:35	5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 17:57	5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 18:20	2.5		DB-624 0.18(mm)
ZZZZZ		07/27/2013 18:42	1		DB-624 0.18(mm)
ZZZZZ		07/27/2013 19:04	1		DB-624 0.18(mm)
240-27035-1	GW-7097-071813-SK-001	07/27/2013 19:26	1	UXR6672.D	DB-624 0.18(mm)
240-27035-2	GW-7097-071813-SK-002	07/27/2013 19:48	1	UXR6673.D	DB-624 0.18(mm)
240-27035-3	GW-7097-071813-SK-003	07/27/2013 20:10	1	UXR6674.D	DB-624 0.18(mm)
240-27035-4	GW-7097-071813-SK-004	07/27/2013 20:32	1	UXR6675.D	DB-624 0.18(mm)
240-27035-5	GW-7097-071813-SK-005	07/27/2013 20:54	1	UXR6676.D	DB-624 0.18(mm)
ZZZZZ		07/27/2013 21:16	1		DB-624 0.18(mm)
240-27035-8	GW-7097-071813-SK-008	07/27/2013 21:38	1	UXR6678.D	DB-624 0.18(mm)
240-27035-9	TB-7097-071813-SK	07/27/2013 22:00	1	UXR6679.D	DB-624 0.18(mm)
ZZZZZ		07/27/2013 22:22	1		DB-624 0.18(mm)
ZZZZZ		07/27/2013 22:45	10		DB-624 0.18(mm)
ZZZZZ		07/27/2013 23:07	10		DB-624 0.18(mm)

8260B

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-27035-1

SDG No.:

Instrument ID: A3UX17 Start Date: 07/29/2013 14:48

Analysis Batch Number: 95368 End Date: 07/30/2013 02:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-95368/1		07/29/2013 14:48	1	BFB398.D	DB-624 0.18(mm)
CCVIS 240-95368/2		07/29/2013 15:15	1	UXR6683.D	DB-624 0.18(mm)
CCV 240-95368/3		07/29/2013 15:37	1	UXR6684.D	DB-624 0.18(mm)
LCS 240-95368/4		07/29/2013 15:59	1	UXR6685.D	DB-624 0.18(mm)
MB 240-95368/6		07/29/2013 16:43	1	UXR6687.D	DB-624 0.18(mm)
ZZZZZ		07/29/2013 17:05	4		DB-624 0.18(mm)
240-27035-6	GW-7097-071813-SK-006	07/29/2013 17:27	1	UXR6689.D	DB-624 0.18(mm)
ZZZZZ		07/29/2013 17:49	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 18:11	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 18:33	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 18:55	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 19:17	33.33		DB-624 0.18(mm)
ZZZZZ		07/29/2013 20:01	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 20:22	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 20:45	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 21:06	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 21:28	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 21:50	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 22:56	1		DB-624 0.18(mm)
ZZZZZ		07/29/2013 23:18	1		DB-624 0.18(mm)
240-27035-7	GW-7097-071813-SK-007	07/30/2013 00:01	1	UXR6707.D	DB-624 0.18(mm)
240-27035-7 MS	GW-7097-071813-SK-007 MS	07/30/2013 00:24	1	UXR6708.D	DB-624 0.18(mm)
240-27035-7 MSD	GW-7097-071813-SK-007 MSD	07/30/2013 00:45	1	UXR6709.D	DB-624 0.18(mm)
ZZZZZ		07/30/2013 01:29	1		DB-624 0.18(mm)
ZZZZZ		07/30/2013 01:52	1		DB-624 0.18(mm)
ZZZZZ		07/30/2013 02:14	1		DB-624 0.18(mm)
ZZZZZ		07/30/2013 02:36	1		DB-624 0.18(mm)
ZZZZZ		07/30/2013 02:58	1		DB-624 0.18(mm)

8260B

Shipping and Receiving Documents

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170
Phone: (734) 453-5123 Fax: (734) 453-5201

COC NO.: PL-12003
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 007097-T05412
Laboratory Name: Test America
Lab Location: N. Canton, O.H.
SSOW ID: 7097-T05-003
Project Name: RACER: Pontiac Centerpoint Campus W
Lab Contact: D. Heckler
Lab Quote No: —
Cooler No: —
Project Location: Pontiac, M.I.
Carrier: Fed Ex
Chemistry Contact: Paul Wiseman
Airbill No: 8010-4751-6981
Sampler(s): Scott Kipper
Date Shipped: 7-18-13

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	TCL VOCs	MS/MSD Request	Comments/ Special Instructions:
1	GW-7097-071813-SK-001	7-18-13	11:00	WG	G		3							3	X		
2	002		11:20				3							3	X		
3	003		11:55				3							3	X		
4	004		12:40				3							3	X		
5	005		13:30				3							3	X		
6	006		14:25				3							3	X		
7	007		15:15				9							9	X	X	MS/MSD
8	008		16:50				3							3	X		
9	TB-7097-071813-SK	7-18-13	—	TB	—		1							1	X		
10	—																
11																	
12																	
13																	
14																	
15																	

240-27035 Chain of Custody

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other:

Total Number of Containers: 31
All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1. Scott K	CRA	7-18-13	18:30	1. [signature]	TA	7-19-13	925
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 27035

Client CRA Site Name _____

Cooler unpacked by: [signature]

Cooler Received on 7-19-13 Opened on 7-19-13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF –1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 4	(CF 0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	☐ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF -0 °C) Observed Cooler Temp. 1.3 °C	Corrected Cooler Temp. 1.3 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC376062**
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: [signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

ATTACHMENT B

LABORATORY VALIDATION REPORT

CONESTOGA-ROVERS & ASSOCIATES

14496 Sheldon Road, Suite #200
Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

MEMORANDUM

TO: Thomas Kinney

REF. NO.: 7097

FROM: Paul Wiseman/tl/35/Det

DATE: September 12, 2013

E-Mail and Hard Copy if Requested

RE: **Analytical Results and Full Validation**
AOI #50 (DUCO Stores) Closure Groundwater Monitoring
Pontiac Centerpoint Campus
Pontiac, Michigan
July 2013

INTRODUCTION

The following document details a validation of analytical results for water samples collected in support of the AOI #50 (DUCO Stores) Closure Groundwater Monitoring at the Pontiac Centerpoint Campus Site during July 2013. Samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio (TestAmerica). A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody form(s), calibration data, blank data, recovery data from surrogate spikes, laboratory control samples (LCS), and matrix spike samples (MS); and field quality assurance/quality control (QA/QC) samples . The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses); adherence to accuracy and precision criteria; and transmittal errors.

The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and the documents entitled:

i) "Quality Assurance Project Plan (QAPP)", Revision 4, June 2012

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99-008, October 1999

Items ii will subsequently be referred to as the "Guidelines" in this Memorandum.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results, supporting quality assurance/quality control (QA/QC) and all raw data provided.

SAMPLE HOLDING TIME AND PRESERVATION

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 2. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved and delivered on ice, stored by the laboratory at the required temperature (0-6°C) and analyzed within the specified holding time periods.

GAS CHROMATOGRAPHY/MASS SPECTROMETER (GC/MS) - TUNING AND MASS CALIBRATION (INSTRUMENT PERFORMANCE CHECK)

Prior to volatile organic compound (VOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, methods require the analysis of specific tuning compound bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout the volatile and semi-volatile analysis periods. All tuning criteria were met; indicating that proper optimization of the instrumentation was achieved.

INITIAL CALIBRATION - ORGANIC ANALYSES

To quantify VOC compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

i) All relative response factors (RRFs) must be greater than or equal to 0.05.

ii) The percent relative standard deviation (RSD) values must not exceed 30.0 percent or a minimum correlation coefficient (R) of 0.995 and minimum coefficient of determination (R^2) of 0.99 if linear and quadratic equation calibration curves, respectively, are used.

The initial calibration data for VOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

CONTINUING CALIBRATION

To ensure that instrument calibration for VOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

CONTINUING CALIBRATION (CONTINUED)

The following criteria were employed to evaluate continuing calibration data:

i) All RRF values must be greater than or equal to 0.05.

ii) Percent difference (%D) values must not exceed 25 percent.

Calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity and stability, with the exception of the samples presented with qualifiers in Table 4. These three compounds (bromomethane, chloroethane, and 1,2,4-trichlorobenzene) had percent differences in excess of or the 25% D indicating the precision associated with compound measurement was greater than desired. These three compounds were all reported non-detect with estimated report limits (UJ).

LABORATORY BLANK ANALYSES

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Acetone was detected in one of the method blank samples but the associated samples were non-detect. The remaining method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

SURROGATE SPIKE RECOVERIES

In accordance with the methods employed, all samples, blanks and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for VOC determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

INTERNAL STANDARDS (IS) ANALYSES

Internal standard data were evaluated for all VOC sample analyses.

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, internal standard compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the internal standard responses.

The sample internal standard results were evaluated against the following criteria:

i) The retention time of the internal standard must not vary more than ±30 seconds from the associated calibration standard.

ii) Internal standard area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard.

All organic internal standard recoveries and retention times met the above criteria.

LABORATORY CONTROL SAMPLE (LCS) ANALYSES

The LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

FIELD QA/QC samples

The field QA/QC consisted of one (1) trip blank sample and one (1) field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one (1) trip blank was collected and submitted to the laboratory for VOC analysis. Acetone was reported in the trip blank sample indicating that the samples were impacted during storage/transfer or analysis. These samples are presented with qualifiers in Table 5. The remaining results were non-detect for the compounds of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one (1) field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

ANALYTE REPORTING

The laboratory reported detected results down to the laboratory's MDL for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

TARGET COMPOUND IDENTIFICATION

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra (if applicable) were evaluated according to the identification criteria established by the methods. The samples identified in Table 1 was reviewed. The organic compounds reported adhered to the specified identification criteria.

CONCLUSION

Based on this assessment of the information provided, the data produced by TestAmerica were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Sample Identification	*Location*	*Matrix*	*Collection Date (mm/dd/yyyy)*	*Collection Time (hr:min)*	*Analysis/Parameters*	*Comments*
TestAmerica Job No.: 240-27035-1						
GW-7097-071813-SK-001	MW34-01	water	7/18/2013	11:00:00 AM	TCL VOC	
GW-7097-071813-SK-002	MW34-01	water	7/18/2013	11:20:00 AM	TCL VOC	Field duplicate of MW34-01
GW-7097-071813-SK-003	MW34-02	water	7/18/2013	11:55:00 AM	TCL VOC	
GW-7097-071813-SK-004	MW34-06	water	7/18/2013	12:40:00 PM	TCL VOC	
GW-7097-071813-SK-005	MW34-04	water	7/18/2013	1:30:00 PM	TCL VOC	
GW-7097-071813-SK-006	MW34-03	water	7/18/2013	2:25:00 PM	TCL VOC	
GW-7097-071813-SK-007	MW34-05	water	7/18/2013	3:15:00 PM	TCL VOC	MS/MSD
GW-7097-071813-SK-008	MW34-07	water	7/18/2013	4:50:00 PM	TCL VOC	
TB-7097-071813-SK	--	water	7/18/2013	7/18/2013	TCL VOC	Trip Blank

Notes:

MS/MSD - Matrix Spike/Matrix Spike Duplicate
TCL - Target compound list
VOC - Volatile organic compound

VALIDATED ANALYTICAL RESULTS SUMMARY
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Sample Location:		*MW34-01*	*MW34-01*	*MW34-02*	*MW34-03*	*MW34-04*	*MW34-05*
Sample ID:		*GW-7097-071813-SK-001*	*GW-7097-071813-SK-002*	*GW-7097-071813-SK-003*	*GW-7097-071813-SK-006*	*GW-7097-071813-SK-005*	*GW-7097-071813-SK-007*
Sample Date:		*07/18/2013*	*07/18/2013*	*07/18/2013*	*07/18/2013*	*07/18/2013*	*07/18/2013*
Sample Type:			*Duplicate*				
Parameters	*Units*						
TCL VOC							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.13 J	0.13 J
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.66 J	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.50 J	1.0 U

VALIDATED ANALYTICAL RESULTS SUMMARY
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Sample Location:		*MW34-01*	*MW34-01*	*MW34-02*	*MW34-03*	*MW34-04*	*MW34-05*
Sample ID:		*GW-7097-071813-SK-001*	*GW-7097-071813-SK-002*	*GW-7097-071813-SK-003*	*GW-7097-071813-SK-006*	*GW-7097-071813-SK-005*	*GW-7097-071813-SK-007*
Sample Date:		*07/18/2013*	*07/18/2013*	*07/18/2013*	*07/18/2013*	*07/18/2013*	*07/18/2013*
Sample Type:			*Duplicate*				
Parameters	*Units*						
TCL VOC							
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Notes:

U - Not detected at the associated reporting limit.
J - Estimated concentration.

TCL - Target compound list
VOC - Volatile organic compound

VALIDATED ANALYTICAL RESULTS SUMMARY
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Sample Location:		*MW34-07*	*MW34-06*
Sample ID:		*GW-7097-071813-SK-008*	*GW-7097-071813-SK-004*
Sample Date:		*07/18/2013*	*07/18/2013*
Sample Type:			
Parameters	*Units*		
TCL VOC			
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 UJ	1.0 UJ
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	ug/L	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U
2-Butanone	ug/L	10 U	10 U
2-Hexanone	ug/L	10 U	10 U
4-Methyl-2-pentanone	ug/L	10 U	10 U
Acetone	ug/L	10 U	10 U
Benzene	ug/L	1.0 U	0.21 J
Bromodichloromethane	ug/L	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U
Bromomethane	ug/L	1.0 UJ	1.0 UJ
Carbon disulfide	ug/L	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U
Chloroethane	ug/L	1.0 UJ	1.0 UJ
Chloroform	ug/L	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.3
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U

VALIDATED ANALYTICAL RESULTS SUMMARY
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Sample Location:		*MW34-07*	*MW34-06*
Sample ID:		*GW-7097-071813-SK-008*	*GW-7097-071813-SK-004*
Sample Date:		*07/18/2013*	*07/18/2013*
Sample Type:			
Parameters	*Units*		
TCL VOC			
Methyl acetate	ug/L	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U
Methyl tert butyl ether	ug/L	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U
Trifluorotrichloroethane	ug/L	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U

Notes:

U - Not detected at the associated reporting lin
J - Estimated concentration.

TCL - Target compound list
VOC - Volatile organic compound

TABLE 3

ANALYTICAL METHODS AND HOLDING TIME CRITERIA
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Parameter	*Method*	*Matrix*	*Preservation*	*Holding Time*	
				Collection to Extraction (Days)	*Collection or Extraction to Analysis (Days)*
TCL VOC	SW-846 8260	Water	pH < 2 and Iced, 4 ± 2° C	-	14

Notes

SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions.

TCL - Target compound list
VOC - Volatile organic compound

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Parameter	*Analyte*	*Calibration Date*	*RRF*	*%D*	*Associated Sample ID*	*Qualified Result*	*Units*
TCL VOC	1,2,4-Trichlorobenzene	7/27/2013	-	-40.3	GW-7097-071813-SK-001	1.0 UJ	µg/L
	Bromomethane			32.4	GW-7097-071813-SK-002	1.0 UJ	µg/L
	Chloroethane			53.2	GW-7097-071813-SK-003	1.0 UJ	µg/L
					GW-7097-071813-SK-004	1.0 UJ	µg/L
					GW-7097-071813-SK-005	1.0 UJ	µg/L
					GW-7097-071813-SK-008	1.0 UJ	µg/L
TCL VOC	1,2,4-Trichlorobenzene	7/29/2013	-	-40.0	GW-7097-071813-SK-006	1.0 UJ	µg/L
	Bromomethane			31.0	GW-7097-071813-SK-007	1.0 UJ	µg/L
	Chloroethane			40.6			

Notes:

UJ - Not detected; associated reporting limit is estimated.
- - Not applicable.
%D - Percent difference.
RRF - Relative response factor.

TCL - Target compound list
VOC - Volatile organic compound

TABLE 5

QUALIFIED SAMPLE DATA DUE TO ANALYTE CONCENTRATIONS IN THE TRIP BLANKS
AOI #50 (DUCO STORES) CLOSURE GROUNDWATER SAMPLING
PONTIAC CENTERPOINT CAMPUS
PONTIAC, MICHIGAN
JULY 2013

Parameter	*Blank Date*	*Analyte*	*Blank Result*	*Associated Sample ID*	*Original Result*	*Qualified Result*	*Units*
TCL VOC	07/18/13	Acetone	1.1	GW-7097-071813-SK-001	1.1 J	10 U	µg/l
				GW-7097-071813-SK-005	2.0 J	10 U	µg/l

Notes:

U - Not detected at the associated reporting limit.
J - Estimated concentration

TCL - Target compound list
VOC - Volatile organic compound

Appendix F

February 4, 2014 Summary for AOI 50 -DUCO Stores – Building 34

CONESTOGA-ROVERS
& ASSOCIATES

14496 Sheldon Road, Suite 200, Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

February 6, 2014

Reference No. 007097

VIA EMAIL ONLY (PDF)

Mr. Peter Ramanauskas
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd., LU-9J
Chicago, IL 60604-3590

Dear Mr. Ramanauskas:

Re: Comments and Responses

Conestoga-Rovers & Associates, Inc. (CRA) on behalf of Revitalizing Auto Communities Environmental Response (RACER) presents this response to United States Environmental Protection Agency (USEPA) email dated November 22, 2013. The USEPA requested updating either the October 2010 LUST Closure Report or the February 10, 2012 CRA letter to have a complete, updated closure request package that would include:

- All of the soil/groundwater data (tables/figures) for the area
- A figure showing groundwater flow direction in the area
- All soil boring and well construction logs (the 2010 LUST Closure report only seems to include MW34-01 through MW34-04)
- Rationale for excluding the GSI pathway including a description of the sewer depths relative to residual contamination
- Rationale for concluding soil has been fully delineated (identifying bounding criteria)
- Rationale for concluding there is no DNAPL/free product presence including a discussion of how the existing site soil data would compare to soil saturation screening levels adjusted to account for multiple contaminants

A letter report from CRA (on behalf of RACER) to the USEPA, dated February 4, 2014 and titled "*Summary for AOI #50 -DUCO Stores – Building 34*" (CRA, 2014) has been prepared to fulfill USEPA's request for an updated closure request package and is attached to this cover letter. The following are comments from the USEPA's e-mail and responses:

1. USEPA Comment

- All of the soil/groundwater data (tables/figures) for the area.

Response

Soil data from the 2007 through 2012 field investigations are presented in Table 1 of the attached letter report. Groundwater data from the 2009 through 2012 field investigations are presented in

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Table 2 of the attached letter report. The soil and groundwater data is compared against MDEQ Part 201 Cleanup Criteria.

2. USEPA Comment

- A figure showing groundwater flow direction in the area.

Response

An updated groundwater contour map from water levels collected on July 18, 2013 is presented as Figure 3 of the attached letter report.

3. USEPA Comment

- All soil boring and well construction logs (the 2010 LUST Closure report only seems to include MW34-01 through MW34-04).

Response

The soil boring logs from the 2008 and 2012 field investigations are presented in Attachment A and the monitoring well construction logs from MW34-01 through MW34-08 are presented in Attachment B of attached letter report.

4. USEPA Comment

- Rationale for excluding the GSI pathway including a description of the sewer depths relative to residual contamination.

Response

To be consistent with the October 2010 Leaking Underground Storage Tanks Closure Report for releases associated with AOI #50, the GSI pathway is not excluded from comparison to soil and groundwater analytical results. Therefore, the analytical results are compared against the Groundwater to Surface Water Interface (GSI) and Groundwater to Surface Water Interface Protection (GSIP) criteria in the attached letter report; however, it is unlikely that impacted groundwater or soil are or will negatively impact storm sewers, storm sewer bedding material, or ultimately a surface water body. A discussion of sewer depths relative to residual contamination is presented under the Section “Storm Sewer and Groundwater to Surface Water Evaluation” of the attached letter.

5. USEPA Comment

- Rationale for concluding soil has been fully delineated (identifying bounding criteria).

Response

The locations (SB-4-08, SB-5-08, SB-7-08 and SB-1-12) exceeding applicable Part 201 Criteria were all delineated to the north, east, south and west. There is additional discussion regarding delineation of impacts and identification of applicable Part 201 Criteria in the attached letter report.

6. USEPA Comment

- Rationale for concluding there is no DNAPL/free product presence including a discussion of how the existing site soil data would compare to soil saturation screening levels adjusted to account for multiple contaminants.

Response

The rationale for concluding there is no NAPL present is based on multiple lines of evidence. The rationale is described in the attached letter.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Thomas M. Kinney

TMK/MJC/4/Det.

Encl. Letter report from CRA (on behalf of RACER) to the USEPA, dated February 4, 2014 and titled "*Summary for AOI #50 -DUCO Stores – Building 34*"; (CRA, 2014)

cc: Grant Trigger, RACER
Dave Favero, RACER

CONESTOGA-ROVERS
& ASSOCIATES

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February 4, 2014

Reference No. 007097

VIA EMAIL ONLY (PDF)

Mr. Peter Ramanauskas
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd., LU-9J
Chicago, IL 60604-3590

Dear Mr. Ramanauskas:

Re: Pontiac Centerpoint Campus (Pontiac West) RCRA Corrective Action – USEPA Facility ID No. MID005356902
Summary for AOI #50 -DUCO Stores – Building 34
660 South Boulevard East, Pontiac, Oakland County, Michigan

This letter was prepared by Conestoga-Rovers & Associates, Inc. (CRA), on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), to provide the United States Environmental Protection Agency (USEPA) with a summary of available information for AOI #50 – DUCO Stores (at RACER's Pontiac West property, the "Site").

Background

In USEPA's August 3, 2006 Response to Comments and Final Decision for selection of final corrective action for the Pontiac Centerpoint Campus, closure of AOI #50 was identified as being addressed under Michigan Act 451, Part 213.

In order to move the DUCO Stores closure forward under Part 213, a Leaking Underground Storage Tank (LUST) Closure Report (Closure Report) was prepared by CRA, on behalf of Motors Liquidation Company (MLC), and submitted to the Michigan Department of Environmental Quality (MDEQ) in October 2010. MDEQ performed an audit of the October 2010 Closure Report and provided comments in letters dated April 20, 2011 and June 20, 2011. After finalization of a Settlement Agreement through the General Motors Corporation bankruptcy process, USEPA was identified as the Lead Agency for this property. Pursuant to discussion among USEPA, MDEQ, and RACER, as documented in an email dated March 14, 2012, RACER confirmed that the USEPA and MDEQ agreed that the confirmed LUST releases associated with DUCO Stores would be addressed through the RCRA Corrective Action process with USEPA as the Lead Agency. On February 10, 2012, CRA submitted a letter to the USEPA addressing the comments from the MDEQ audit of corrective actions. In response to the February 10, 2012 letter, USEPA requested an investigation of chlorinated volatile organic compound (VOC) impacts located west of the former UST excavation area in the former hazardous materials storage area and VOC impacts located east of the former UST footprint.

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On July 30, 31 and August 1, 2012, a field investigation was completed to further characterize VOC impacts located west of the former UST basin in the former hazardous materials storage area and VOC impacts located east of the former UST footprint. Analytical results indicated concentrations exceeded applicable Part 201 cleanup criteria at several soil boring locations; however, the exceedances were delineated at the Site (as discussed in the sections below). These results were provided to USEPA in a letter dated November 28, 2012.

At the request of USEPA, a groundwater monitoring event was conducted on July 18, 2013 to confirm historic groundwater analytical results. The results of the groundwater monitoring event were consistent with historical results and the results were provided to USEPA In a letter dated September 24, 2013.

Storm Sewer and Groundwater to Surface Water Evaluation

The main storm line in the area of DUCO Stores is orientated north and south with a diameter ranging from 8-48 inches and depth ranging from 13-15 feet within the area of DUCO Stores. The diameter and depth increases as it travels north, eventually increasing in diameter to 72 inches and a depth of approximately 21 feet below ground surface (bgs) as it leaves the Site (to the north). There appears to be a storm sewer lateral that runs east and west that intersects with the main storm line in the northern portion of the DUCO Stores former UST basin. Based on storm line flow maps (Figures 1 and 2), storm water from the area of DUCO Stores drains to the north and discharges into Murphy Creek located approximately 4,200 feet north of DUCO stores.

The groundwater throughout the area of DUCO Stores is generally inconsistent in depth and does not appear to be interconnected. However, a groundwater contour map was completed (Figure 3) with the assumption that the groundwater is interconnected throughout the DUCO Stores area and appears to have a gradient to the north-northeast direction. The depths to groundwater varied greatly from 4.46 to 20.20 feet bgs which is likely the result of fill material, discontinuous sand seams, and surface elevation changes. Upon review of the boring logs (Attachments A and B), most of the monitoring wells appear to be installed in a saturated interval ranging from 8 to 22 feet bgs and less than two feet thick with impermeable clay above and below. Specifically, the borehole water that exceeded GSI criteria from SB-3-08 (located 100 feet east of the storm line) and SB-4-08 (located 40 feet east of the storm line) were collected from approximately 12 to 15 feet bgs. Although the samples from the borehole water are from a similar depth interval as the storm sewer, the assumed groundwater flow direction is to the north or northeast and does not intersect with the storm lines. Additionally, no VOCs were detected at any down-gradient wells (MW34-07 and MW34-08). Further, Part 201 was significantly amended in 2012 (by Acts 190 and 446) with regards to obligations to address substances in groundwater that may impact surface water (the Groundwater to Surface water Interface or "GSI" pathway). The Act 190 amendments to Part 201 substantially changed the manner in which this condition can be addressed, in that it is no longer necessary for surface water criteria (promulgated as Part 201 GSI criteria) to be met

in groundwater, provided that any venting of substances to surface water does not result in impairment of the protected uses of the receiving surface water body. Based on the nature and extent of the impacts in groundwater (dissolved phase petroleum hydrocarbons at relatively low concentrations within a defined and limited area) the potential for impacts to the storm sewer are low and more significantly, the potential for impacts to make it into a storm sewer, mix with storm water and travel nearly a mile to the nearest creek are even lower.

Although it is unlikely groundwater is impacting the storm lines and even less likely that there is a potential for impacts to surface water, to be consistent with the October 2010 Leaking Underground Storage Tanks Closure Report for releases associated with AOI #50 (DUCO Stores), the groundwater and soil analytical results are compared against the Groundwater to Surface Water Interface (GSI) and Groundwater to Surface Water Interface Protection (GSIP) criteria, respectively. A description of soil and groundwater impacts associated with the DUCO Stores in comparison to the GSI pathway is described below:

Soil:

Results from historical soil samples collected within the former DUCO Stores UST basin along the storm sewer line were below GSIP except for reported concentrations of naphthalene and xylenes in sample 45 (a sidewall sample collected at 6.5 ft bgs), which are not considered mobile constituents.

Soil samples collected during the 2008 investigation contained concentrations of various metals from SB-4-08 (10-12 feet bgs) at SB-5-08 (15-16 feet bgs) and SB-7-08 (10.5-12 feet bgs) that exceeded GSIP; however, they are not considered mobile constituents.

Soil samples collected during the 2008 and 2012 investigation contained concentrations of 1,1,1-trichlorethane (1-1-1 TCA), 1,1 – dichloroethene (1,1-DCE) and trichloroethene (TCE) that exceeded GSIP at SB-07-08 (10.5-12 feet bgs) and SB-1-12 (10-12 feet bgs). Both soil borings were located west of the main storm line with the closest boring (SB-1-12) located 45 feet west of the main storm line. In addition, SB-1-12 is located just south of the lateral line leading to the main storm line. Soil boring SB-19-12 was installed between SB-1-12 and the main storm line and soil results from SB-19-12 were below GSIP criteria. In general, the impacts above GSIP are unlikely to leach to groundwater and migrate to the main storm line. GSIP exceedances are delineated in all directions by borings SB-17-12, SB-18-12, SB-19-12 and SB-2-12. Figure 4 presents a Site map with soil boring and sample locations. Figures 5 presents a site map with 2007-2012 soil analytical results.

Groundwater:

Groundwater collected from borehole water at SB-3-08 and SB-4-08 exceeded GSI criteria. SB-3-08 contained an exceedance of isopropyl benzene and SB-4-08 had exceedances of 2-methynapthalene, naphthalene, benzene and ethylbenzene. The impacted borehole water was collected from borings

located approximately 100 feet east of the storm line (SB-3-08) and 40 feet east of the storm line (SB-4-08). Both borings were installed directly north of the former UST excavation. Monitoring wells MW34-05, MW34-07 and MW34-08 were installed to the northwest, north and northeast of SB-3-08 and SB-4-08 to delineate potential groundwater impacts. MW34-06 was installed in the former tank cavity to evaluate groundwater impacts in the source area. Based on the groundwater analytical results from monitoring wells MW34-05 through MW34-08, there were no exceedances of the generic Part 201/213 criteria. Therefore, based on current and historical data, it appears the impacted groundwater associated with soil borings SB-3-08 and SB-4-08 is limited in nature and extent. The impacted groundwater is unlikely to migrate to a surface water body via natural groundwater transport or via storm sewers. Figure 6 present site maps with 2008, 2009 and 2013 groundwater and borehole water analytical results.

Applicable Comparison Criteria for Investigations

The DUCO Stores UST systems have been removed from the ground and the former hazardous materials storage area is no longer used for hazmat storage, eliminating the apparent sources of the releases. Current and planned restrictions at the Site include the following:

- Restrict land use to industrial/commercial uses
- Restrict resource use to prevent shallow groundwater from being used for drinking water
- Prohibit construction of wells
- Restrict vapor intrusion by requiring soil vapor assessment and/or management near the former hazardous materials storage area as proposed in the November 28, 2012 letter titled "*RCRA Corrective Action - Releases associated with AOI 50 and an UST near AOI 53*"

These restrictions will prevent complete exposure pathways for all residential pathway criteria, the soil volatilization to indoor air criteria (SVIIC), groundwater volatilization to indoor air criteria (GVIIC), drinking water criteria (DWC) and drinking water protection criteria (DWPC). Therefore, no further action is required for residential exceedances and the SVIIC, GVIIC, DWC and DWPC pathway exceedances.

Based on the current and planned future Site restrictions, and Site specific characteristics described above, the following Non-Residential criteria are applicable for the Site:

Soil:

- Groundwater Contact Protection Criteria (GCPC)
- Groundwater Surface Water Interface Protection Criteria (GSIP)
- Direct Contact Criteria (DCC)

- Soil Saturation Concentration Screening (Csat)

Groundwater:

- Groundwater Contact Criteria (GCC)
- Groundwater Surface Water Interface Criteria (GSI)
- Water Solubility
- Flammability/Explosivity Screening Level (FESL)

The analytical data for soil and groundwater compared to all generic Part 201/213 criteria are presented in Tables 1 and 2, respectively.

Summary of Soil Results

Positive Sudan IV jar tests were identified in the 2007 and 2008 soil investigation at SB-3-08 (12.5-13 feet bgs) and SB-4-08 (14-14.5 feet bgs). Groundwater samples were collected from these locations at similar depth intervals and analytical results did not contain concentrations indicative of potential solubility exceedances. Further, no evidence of NAPL was observed in either groundwater sampling location.

Upon review of soil analytical results from 2007-2012, constituents did not exceed applicable Part 201/2013 criteria except GSIP at SB-4-08 (10-12 feet bgs), SB-5-08 (15-16 feet bgs), SB-7-08 (10.5-12 feet bgs) and SB-1-12 (10-12 feet bgs) as identified below:

- SB-4-08 (10-12 feet bgs) exceeded GSIP for selenium
- SB-5-08 (15-16 feet bgs) exceeded GSIP for arsenic
- SB-7-08 (10.5-12 feet bgs) exceeded GSIP for selenium, arsenic, 1,1-DCE and 1,1,1-DCA
- SB-1-12 (10-12 feet bgs) exceeded GSIP for 1,1,1-DCA and TCE

Chlorinated VOC exceedances from SB-1-12 and SB-7-08 were delineated by soil borings SB-18-12, SB19-12, SB-2-12 and SB-17-12 to the north, east, south and west, respectively. Therefore, soil impacts with chlorinated VOCs above applicable Part 201/2013 criteria are delineated in the area of DUCO Stores. The metal impacts at SB-04-08 and SB-5-08 are not considered mobile constituents and unlikely to leach to groundwater and migrate outside the area of DUCO Stores. See Table 1 for analytical results from 2007-2012. See Figure 5 for a Site map with soil analytical results. See Attachment A for soil boring logs.

Summary of Groundwater Results

Upon review of groundwater analytical results from 2008-2013, constituents did not exceed applicable Part 201/2013 criteria except GSI from borehole water at SB-3-08 and SB-4-08 as identified below:

- SB-3-08 exceeded GSI for Isopropyl benzene
- SB-4-08 exceeded GSI for benzene, ethylbenzene, 2-methylnaphthalene and naphthalene

Groundwater samples collected from monitoring wells MW34-01, MW34-02, MW34-03, MW34-04, MW34-05, MW34-06, MW34-07 and MW34-08 were below the most restrictive Part 201/2013 criteria to the north, east, south and west. Therefore, groundwater impacts above applicable Part 201/2013 criteria are delineated in the area of DUCO Stores. See Table 2 for analytical results from 2009-2012. See Figure 6 for a Site map with groundwater analytical results. See Attachment B for monitoring well construction details for MW34-01 through MW34-08.

Rationale for Concluding There Is No DNAPL/Free Product Presence

In letters dated April 20, 2011 and June 20, 2011, the MDEQ completed an audit of corrective actions to the October 2010 DUCO Stores UST Closure Report and stated:

> *"An effort must be made to demonstrate free phase contamination is not present in soils remaining at the Site. Without such information, comparison to the generic criteria is not appropriate; and therefore, it could not be demonstrated that compliance with the applicable cleanup criteria has been achieved."*

Based on recent changes to Michigan's Part 213, the "weight of evidence" approach utilized for this project (PID, visual/olfactory evidence, observations and gauging for presence of NAPL, standard analytical values, etc.) toward assessing presence of free phase constituents is an acceptable approach. During CRA's investigations at the DUCO Stores, no evidence of NAPL within the soil matrix was observed and based on "weight of evidence" from the field and analytical results; no evidence of free phase contamination was observed or verified. Further, based on data from the permanent groundwater monitoring wells and the borehole groundwater sampling points (temporary wells), no evidence of free product was observed or detected. Accordingly, comparison to generic criteria appears to be relevant and appropriate for evaluation of soil data collected at the DUCO Stores UST area.

Conclusion

Based on data collected from the 2007 – 2013 investigations, soil and groundwater data confirm delineation of historic impacts associated with former DUCO Stores area, including the former hazardous materials storage area, and no further investigation is necessary.

No evidence of NAPL within the soil matrix was observed based on CRA's "weight of evidence" approach (Sudan IV jar test, PID, visual/olfactory evidence, standard analytical values, etc.) to assess the potential presence of free phase constituents. Accordingly, comparison to generic criteria appears to be relevant and appropriate for evaluation of soil data collected at the DUCO Stores UST area

No soil samples from 2007-2012 exceeded the Csat criteria at or near the DUCO Stores or former hazardous materials storage areas, and the only applicable criteria exceeded was GSIP. The locations (SB-4-08, SB-5-08, SB-7-08 and SB-1-12) with GSIP criteria exceedances of chlorinated VOCs were all delineated to the north, east, south and west.

Groundwater analytical results from MW34-01 thru MW34-08 are all below the most restrictive generic Part 201/213 criteria. Borehole water from SB-3-08 and SB-4-08 did exceed GSI criteria; however, monitoring wells MW34-05, MW34-07 and MW34-08 (installed down gradient of SB-3-08 and SB-4-08) have no exceedances of the generic Part 201/213 criteria. Based on the groundwater flow direction (north-northeast) and the analytical results, the impacted groundwater associated with the DUCO Stores and former hazardous materials storage area releases is not migrating and is not expected to migrate off Site.

CRA, on behalf of RACER, recommends that the June 2011 Request for RCRA CACC be updated to include the findings of the 2012 - 2013 field activities associated with DUCO Stores and the additional Restrictive Covenant be filed for the property. Following USEPA acceptance of the updated Request for CACC, it is anticipated that USEPA will provide direction on the next steps to be taken, such as a public notice period and/or USEPA final decision document.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Thomas M. Kinney

TMK/MJC/4/Det.

Encl. Figure 1 – Site overview with relationship to sewers and streams
Figure 2 – Site map with monitoring well locations, sewers and storm sewer directional flow
Figure 3 – Groundwater contour map – July 18, 2013
Figure 4 – Site map with soil boring and sample locations
Figure 5 – 2007-2012 Soil analytical results
Figure 6 – 2008, 2009 and 2013 Groundwater and borehole water analytical results

Table 1 – Soil Analytical Results 2007-2012
Table 2 – Groundwater Analytical Results 2008-2013

Attachment A – Soil Boring Logs
Attachment B – Monitoring Well Installation Logs

cc: Grant Trigger, RACER
Dave Favero, RACER

FIGURES

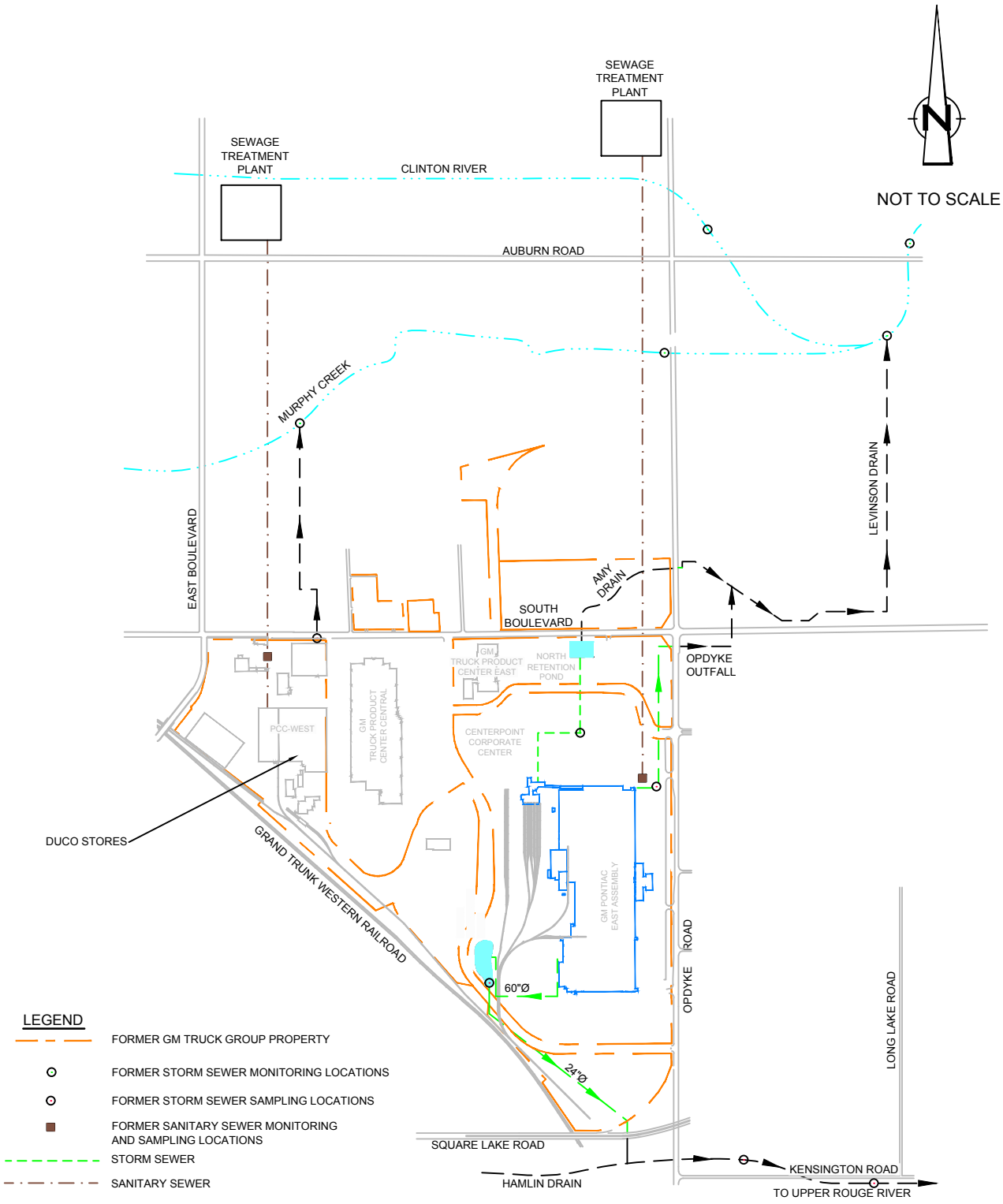


figure 1

SITE OVERVIEW WITH RELATIONSHIP TO SEWERS AND STREAMS
AOI #50: DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T02(RAMI004)GN-DE001 JAN 22/2014

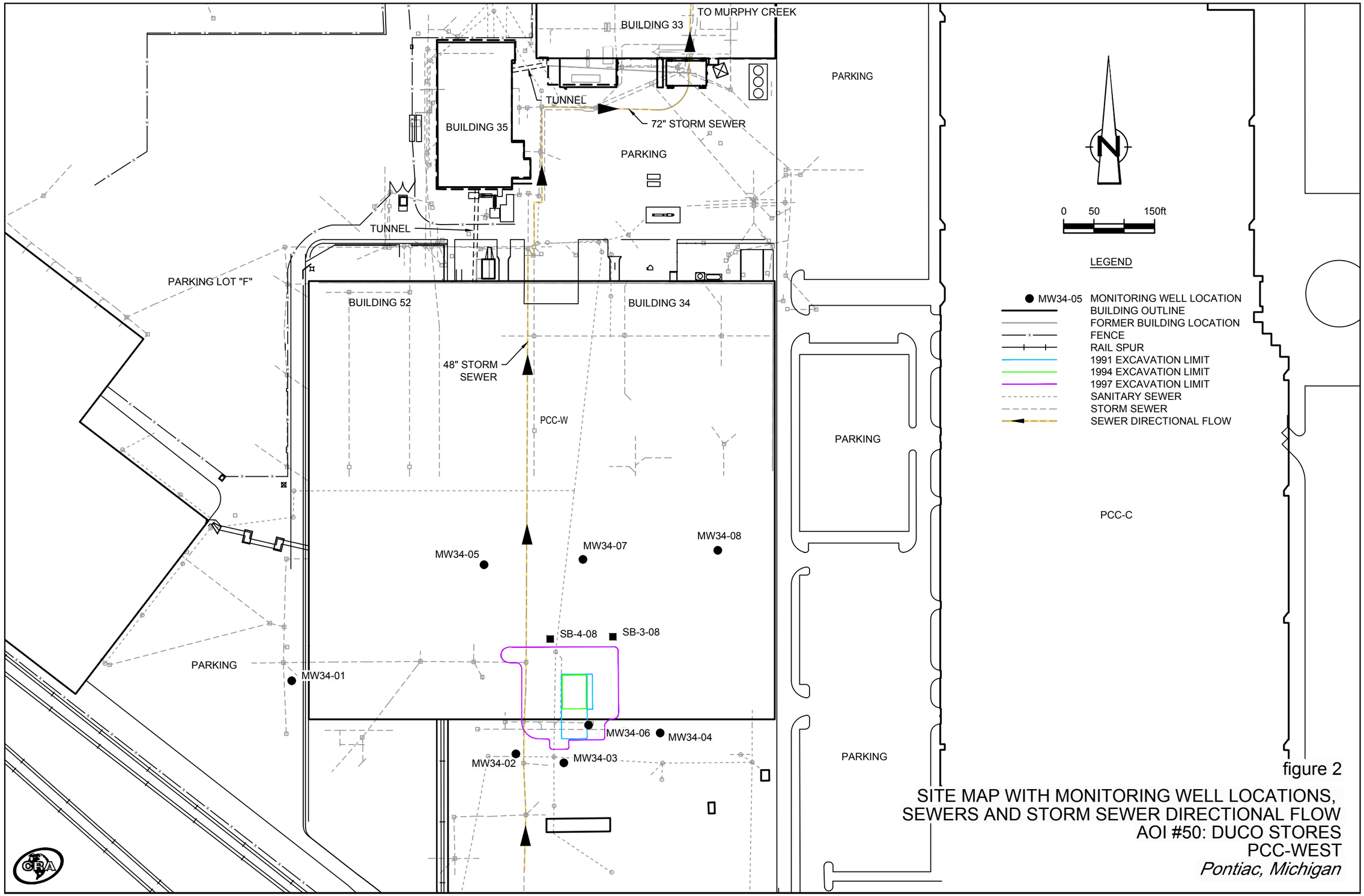


figure 2

SITE MAP WITH MONITORING WELL LOCATIONS, SEWERS AND STORM SEWER DIRECTIONAL FLOW
AOI #50: DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T02(RAMI004)GN-DE002 JAN 30/2014

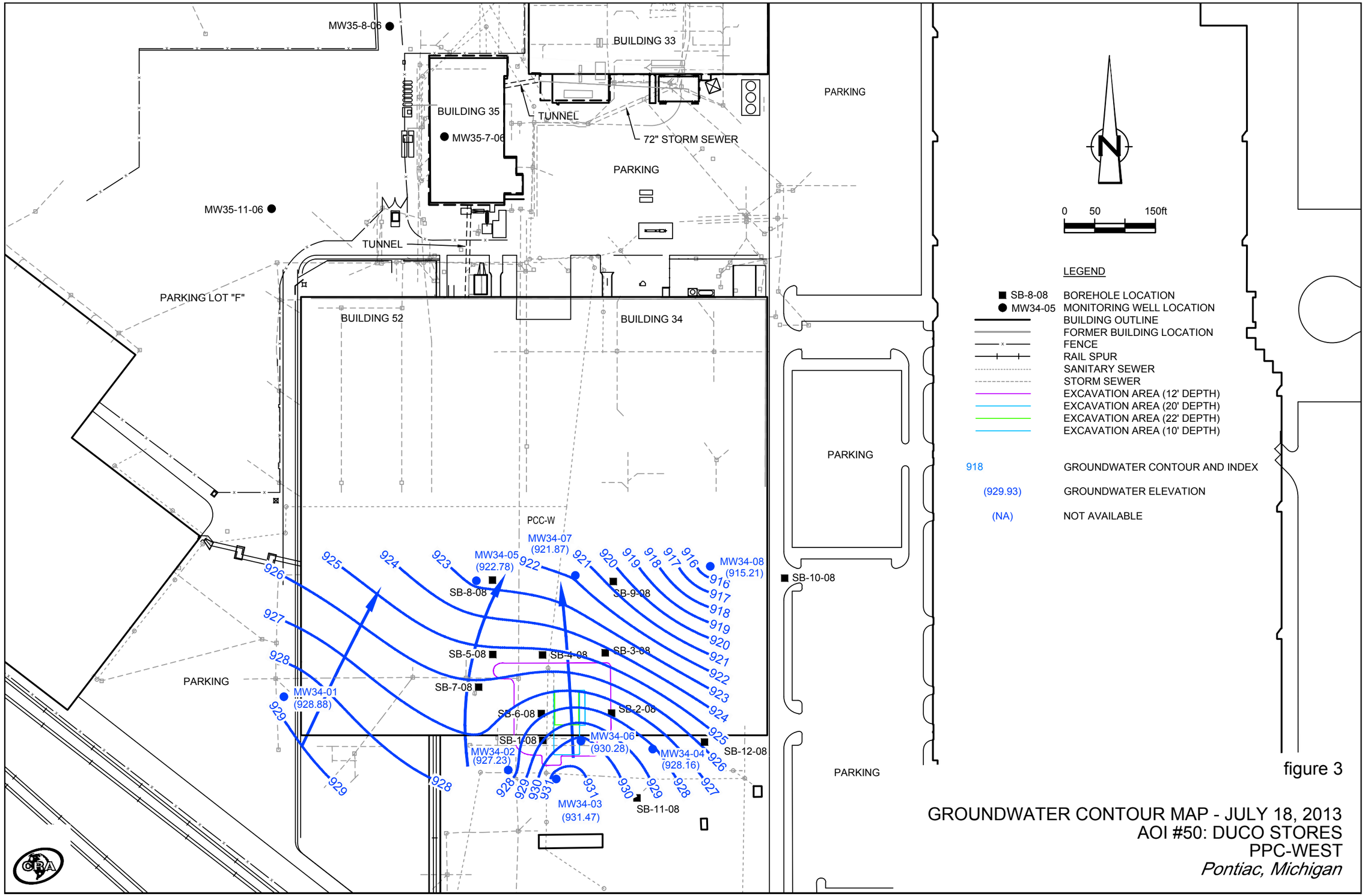


figure 3

GROUNDWATER CONTOUR MAP - JULY 18, 2013
AOI #50: DUCO STORES
PPC-WEST
Pontiac, Michigan

07097-T02(RAMI004)GN-DE003 JAN 20/2014

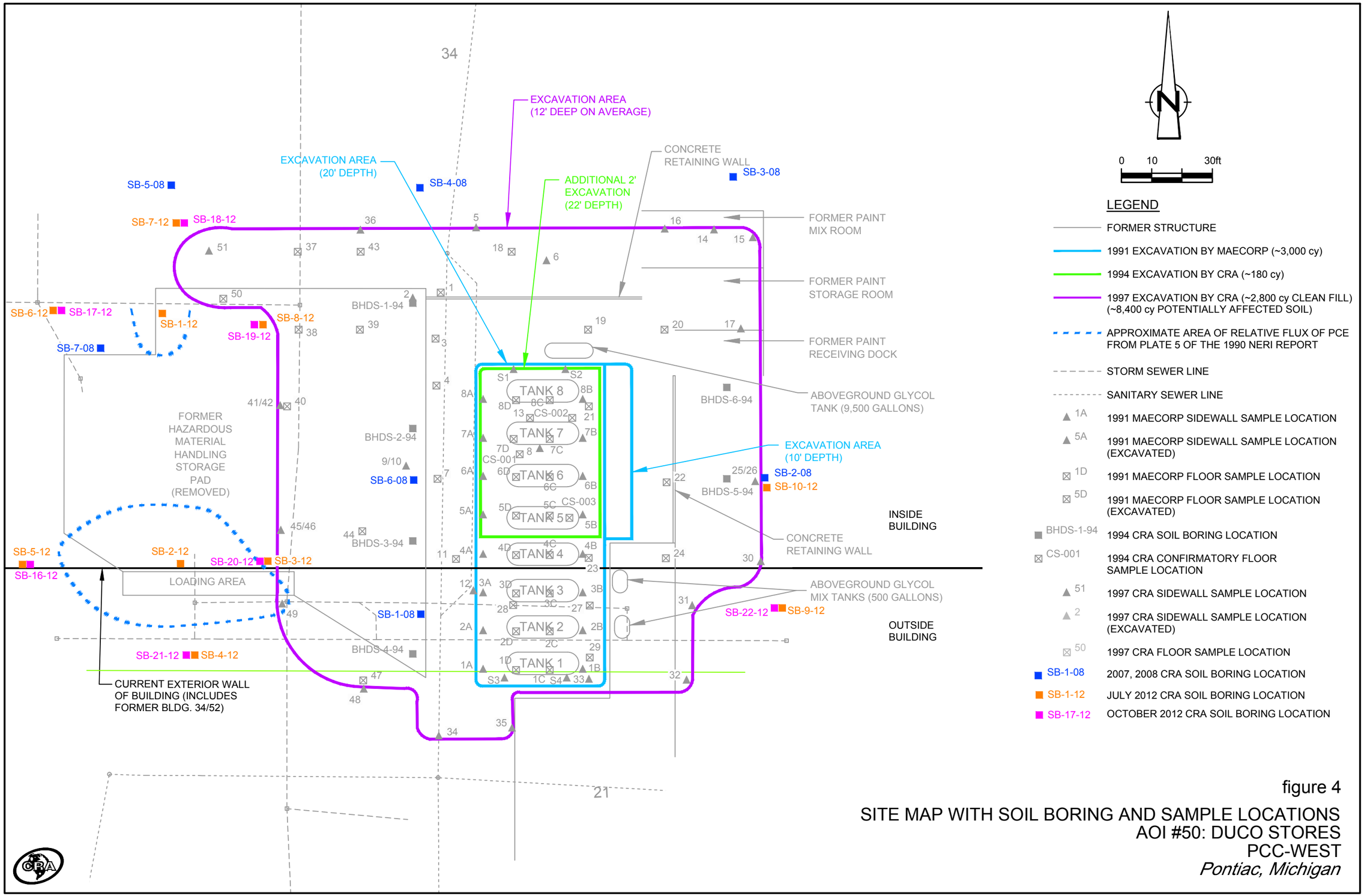
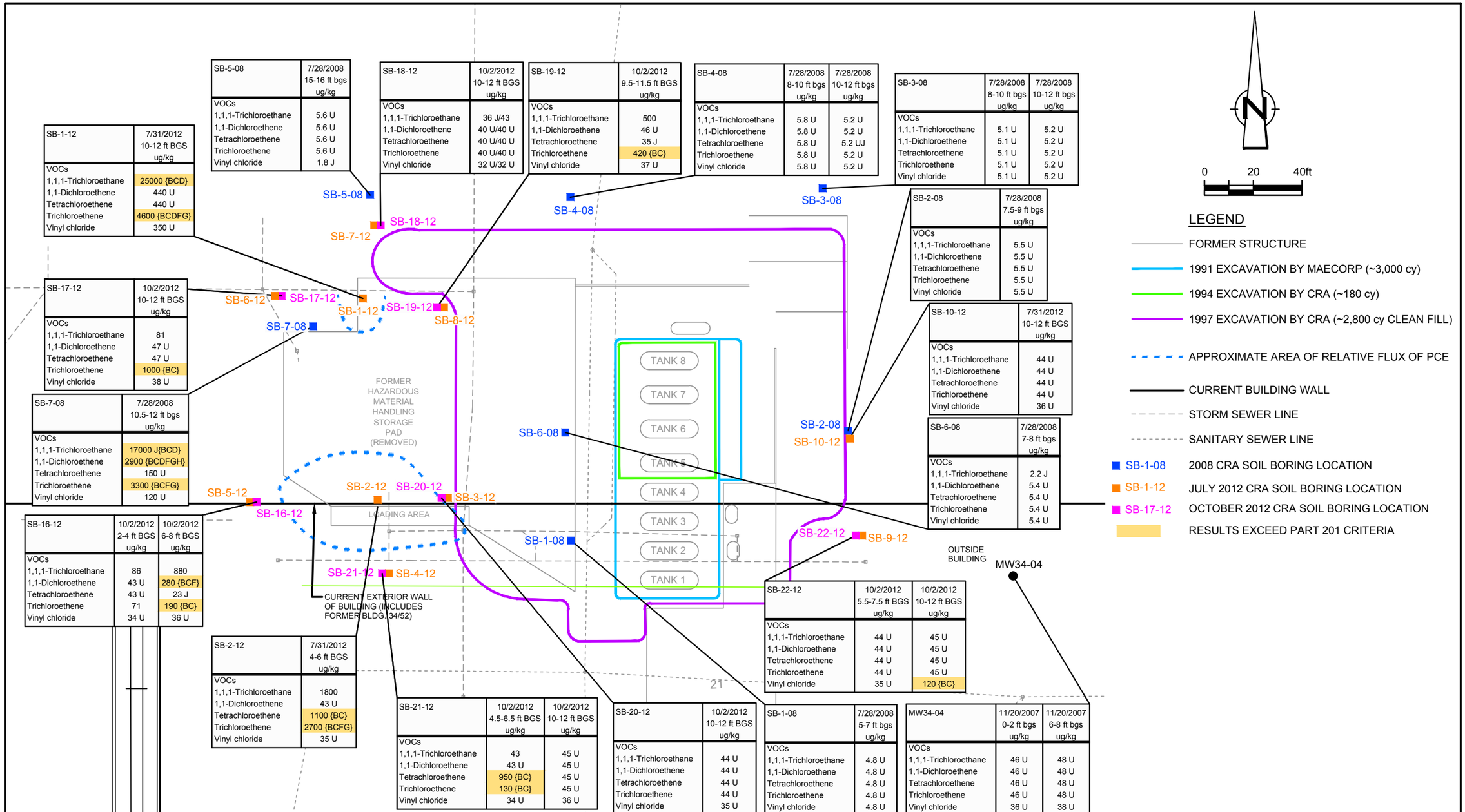


figure 4

SITE MAP WITH SOIL BORING AND SAMPLE LOCATIONS
AOI #50: DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T02(RAMI004)GN-DE004 JAN 21/2014



SB-5-08	7/28/2008 15-16 ft bgs ug/kg
VOCs	
1,1,1-Trichloroethane	5.6 U
1,1-Dichloroethene	5.6 U
Tetrachloroethene	5.6 U
Trichloroethene	5.6 U
Vinyl chloride	1.8 J

SB-18-12	10/2/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	36 J/43
1,1-Dichloroethene	40 U/40 U
Tetrachloroethene	40 U/40 U
Trichloroethene	40 U/40 U
Vinyl chloride	32 U/32 U

SB-19-12	10/2/2012 9.5-11.5 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	500
1,1-Dichloroethene	46 U
Tetrachloroethene	35 J
Trichloroethene	420 {BC}
Vinyl chloride	37 U

SB-4-08	7/28/2008 8-10 ft bgs ug/kg	7/28/2008 10-12 ft bgs ug/kg
VOCs		
1,1,1-Trichloroethane	5.8 U	5.2 U
1,1-Dichloroethene	5.8 U	5.2 U
Tetrachloroethene	5.8 U	5.2 UJ
Trichloroethene	5.8 U	5.2 U
Vinyl chloride	5.8 U	5.2 U

SB-3-08	7/28/2008 8-10 ft bgs ug/kg	7/28/2008 10-12 ft bgs ug/kg
VOCs		
1,1,1-Trichloroethane	5.1 U	5.2 U
1,1-Dichloroethene	5.1 U	5.2 U
Tetrachloroethene	5.1 U	5.2 U
Trichloroethene	5.1 U	5.2 U
Vinyl chloride	5.1 U	5.2 U

SB-1-12	7/31/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	25000 {BCD}
1,1-Dichloroethene	440 U
Tetrachloroethene	440 U
Trichloroethene	4600 {BCDFG}
Vinyl chloride	350 U

SB-2-08	7/28/2008 7.5-9 ft bgs ug/kg
VOCs	
1,1,1-Trichloroethane	5.5 U
1,1-Dichloroethene	5.5 U
Tetrachloroethene	5.5 U
Trichloroethene	5.5 U
Vinyl chloride	5.5 U

SB-17-12	10/2/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	81
1,1-Dichloroethene	47 U
Tetrachloroethene	47 U
Trichloroethene	1000 {BC}
Vinyl chloride	38 U

SB-10-12	7/31/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	44 U
1,1-Dichloroethene	44 U
Tetrachloroethene	44 U
Trichloroethene	44 U
Vinyl chloride	36 U

SB-7-08	7/28/2008 10.5-12 ft bgs ug/kg
VOCs	
1,1,1-Trichloroethane	17000 J{BCD}
1,1-Dichloroethene	2900 {BCDFGH}
Tetrachloroethene	150 U
Trichloroethene	3300 {BCFG}
Vinyl chloride	120 U

SB-6-08	7/28/2008 7-8 ft bgs ug/kg
VOCs	
1,1,1-Trichloroethane	2.2 J
1,1-Dichloroethene	5.4 U
Tetrachloroethene	5.4 U
Trichloroethene	5.4 U
Vinyl chloride	5.4 U

SB-16-12	10/2/2012 2-4 ft BGS ug/kg	10/2/2012 6-8 ft BGS ug/kg
VOCs		
1,1,1-Trichloroethane	86	880
1,1-Dichloroethene	43 U	280 {BCF}
Tetrachloroethene	43 U	23 J
Trichloroethene	71	190 {BC}
Vinyl chloride	34 U	36 U

SB-22-12	10/2/2012 5.5-7.5 ft BGS ug/kg	10/2/2012 10-12 ft BGS ug/kg
VOCs		
1,1,1-Trichloroethane	44 U	45 U
1,1-Dichloroethene	44 U	45 U
Tetrachloroethene	44 U	45 U
Trichloroethene	44 U	45 U
Vinyl chloride	35 U	120 {BC}

SB-2-12	7/31/2012 4-6 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	1800
1,1-Dichloroethene	43 U
Tetrachloroethene	1100 {BC}
Trichloroethene	2700 {BCFG}
Vinyl chloride	35 U

SB-21-12	10/2/2012 4.5-6.5 ft BGS ug/kg	10/2/2012 10-12 ft BGS ug/kg
VOCs		
1,1,1-Trichloroethane	43	45 U
1,1-Dichloroethene	43 U	45 U
Tetrachloroethene	950 {BC}	45 U
Trichloroethene	130 {BC}	45 U
Vinyl chloride	34 U	36 U

SB-20-12	10/2/2012 10-12 ft BGS ug/kg
VOCs	
1,1,1-Trichloroethane	44 U
1,1-Dichloroethene	44 U
Tetrachloroethene	44 U
Trichloroethene	44 U
Vinyl chloride	35 U

SB-1-08	7/28/2008 5-7 ft bgs ug/kg
VOCs	
1,1,1-Trichloroethane	4.8 U
1,1-Dichloroethene	4.8 U
Tetrachloroethene	4.8 U
Trichloroethene	4.8 U
Vinyl chloride	4.8 U

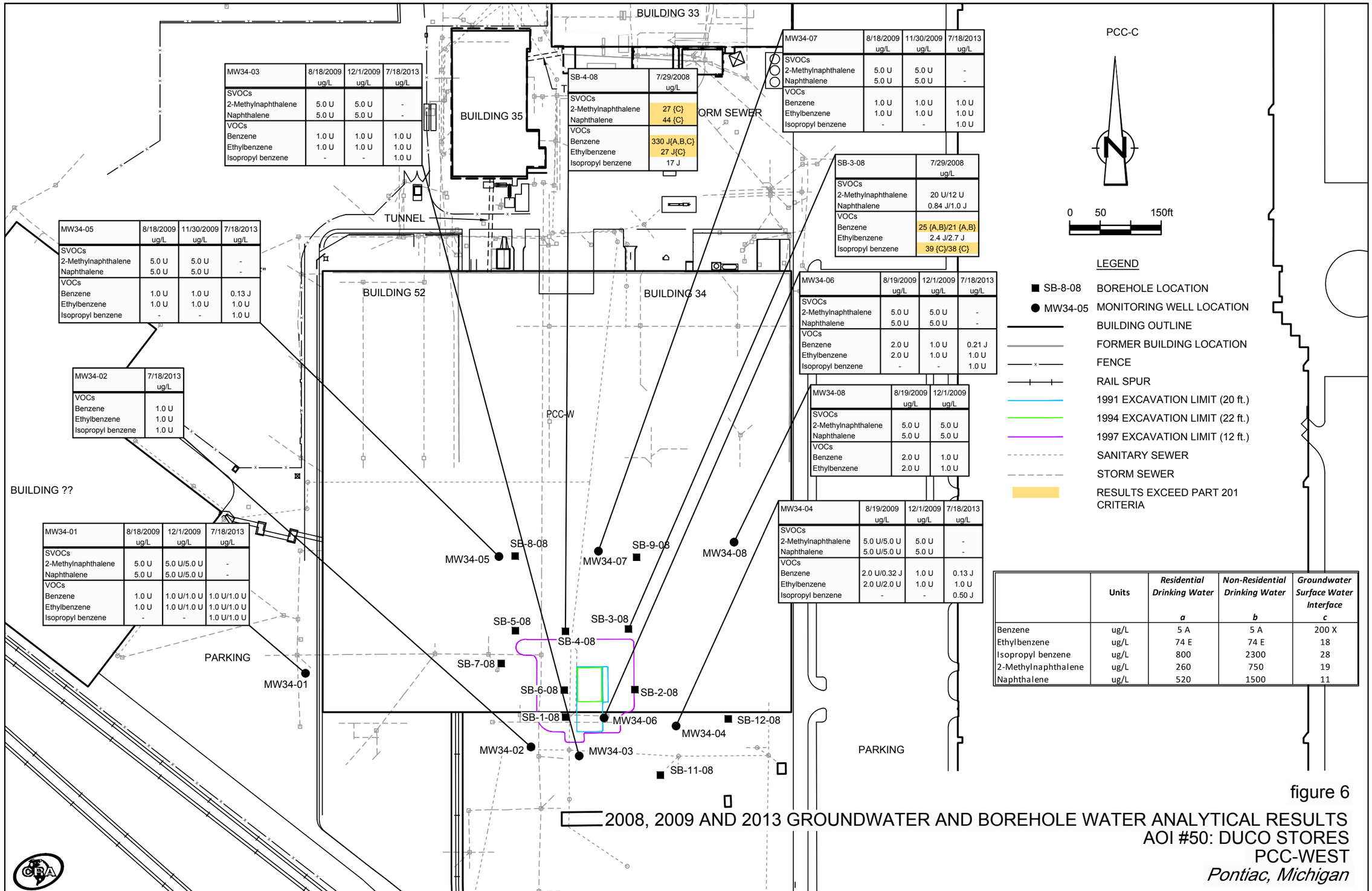
MW34-04	11/20/2007 0-2 ft bgs ug/kg	11/20/2007 6-8 ft bgs ug/kg
VOCs		
1,1,1-Trichloroethane	46 U	48 U
1,1-Dichloroethene	46 U	48 U
Tetrachloroethene	46 U	48 U
Trichloroethene	46 U	48 U
Vinyl chloride	36 U	38 U

	Units	*Drinking Water Protection* *b*	*Non-Residential Drinking Water Protection* *c*	*Groundwater Surface Water Interface Protection* *d*	*Soil Volatilization to Indoor Air Inhalation* *f*	*Non-Residential Soil Volatilization to Indoor Air Inhalation* *g*	*Infinite Source Volatile Soil Inhalation* *h*
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	250000	460000	3800000
1,1-Dichloroethene	ug/kg	140	140	2600	62	330	1100
Tetrachloroethene	ug/kg	100	100	1200 X	11000	21000	170000
Trichloroethene	ug/kg	100	100	4000 X	1000	1900	11000
Vinyl chloride	ug/kg	40	40	260 X	270	2800	4200

figure 5

2007 - 2012 SOIL ANALYTICAL RESULTS
AOI # 50: DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T02(RAMI004)GN-DE005 FEB 4/2014



MW34-03	8/18/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

SB-4-08	7/29/2008 ug/L
SVOCs	
2-Methylnaphthalene	27 {C}
Naphthalene	44 {C}
VOCs	
Benzene	330 J{A,B,C}
Ethylbenzene	27 J{C}
Isopropyl benzene	17 J

MW34-07	8/18/2009 ug/L	11/30/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

SB-3-08	7/29/2008 ug/L
SVOCs	
2-Methylnaphthalene	20 U/12 U
Naphthalene	0.84 J/1.0 J
VOCs	
Benzene	25 {A,B}/21 {A,B}
Ethylbenzene	2.4 J/2.7 J
Isopropyl benzene	39 {C}/38 {C}

MW34-05	8/18/2009 ug/L	11/30/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U	0.13 J
Ethylbenzene	1.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

MW34-06	8/19/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U	-
Naphthalene	5.0 U	5.0 U	-
VOCs			
Benzene	2.0 U	1.0 U	0.21 J
Ethylbenzene	2.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	1.0 U

MW34-02	7/18/2013 ug/L
VOCs	
Benzene	1.0 U
Ethylbenzene	1.0 U
Isopropyl benzene	1.0 U

MW34-08	8/19/2009 ug/L	12/1/2009 ug/L
SVOCs		
2-Methylnaphthalene	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U
VOCs		
Benzene	2.0 U	1.0 U
Ethylbenzene	2.0 U	1.0 U

MW34-04	8/19/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U/5.0 U	5.0 U	-
Naphthalene	5.0 U/5.0 U	5.0 U	-
VOCs			
Benzene	2.0 U/0.32 J	1.0 U	0.13 J
Ethylbenzene	2.0 U/2.0 U	1.0 U	1.0 U
Isopropyl benzene	-	-	0.50 J

MW34-01	8/18/2009 ug/L	12/1/2009 ug/L	7/18/2013 ug/L
SVOCs			
2-Methylnaphthalene	5.0 U	5.0 U/5.0 U	-
Naphthalene	5.0 U	5.0 U/5.0 U	-
VOCs			
Benzene	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Ethylbenzene	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Isopropyl benzene	-	-	1.0 U/1.0 U

	Units	*Residential Drinking Water* *a*	*Non-Residential Drinking Water* *b*	*Groundwater Surface Water Interface* *c*
Benzene	ug/L	5 A	5 A	200 X
Ethylbenzene	ug/L	74 E	74 E	18
Isopropyl benzene	ug/L	800	2300	28
2-Methylnaphthalene	ug/L	260	750	19
Naphthalene	ug/L	520	1500	11

figure 6

2008, 2009 AND 2013 GROUNDWATER AND BOREHOLE WATER ANALYTICAL RESULTS
AOI #50: DUCO STORES
PCC-WEST
Pontiac, Michigan

07097-T02(RAMI004)GN-DE006 FEB 4/2014

TABLES

TABLE 1

SOIL ANALYTICAL RESULTS 2007-2012
DUCO STORES
PCC-WEST
PONTIAC, MICHIGAN

Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)																								
Sample Location:		*Drinking Water Protection*	*Non-Residential Drinking Water Protection*	*Groundwater Surface Water Interface Protection*	*Groundwater Contact Protection*	*Soil Volatilization to Indoor Air Inhalation*	*Non-Residential Soil Volatilization to Indoor Air Inhalation*	*Infinite Source Volatile Soil Inhalation*	*MW34-04*	*MW34-04*	*SB-1-08*	*SB-2-08*	*SB-3-08*	*SB-3-08*	*SB-4-08*	*SB-4-08*	*SB-5-08*	*SB-6-08*	*SB-7-08*	*SB-1-12*	*SB-2-12*	*SB-10-12*	*SB-11-12*	*SB-11-12*	*SB-12-12*
Sample Depth:									*0-2 ft bgs*	*6-8 ft bgs*	*5-7 ft bgs*	*7.5-9 ft bgs*	*8-10 ft bgs*	*10-12 ft bgs*	*8-10 ft bgs*	*10-12 ft bgs*	*15-16 ft bgs*	*7-8 ft bgs*	*10.5-12 ft bgs*	*10-12 ft BGS*	*4-6 ft BGS*	*10-12 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*
Sample Date:									*11/20/2007*	*11/20/2007*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/28/2008*	*07/31/2012*	*07/31/2012*	*07/31/2012*	*07/30/2012*	*07/30/2012*	*07/30/2012*
Sample Type:																								*Duplicate*	
Parameters	*Units*	*b*	*c*	*d*	*e*	*f*	*g*	*h*																	
VOCs*																									
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	460000 C	250000	460000	3800000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	5.6 U	2.2 J	17000 J[bcd]	25000[bcd]	1800	44 U	42 U	43 U	41 U
1,1,2,2-Tetrachloroethane	ug/kg	170	700	1600 X	94000	4300	23000	10000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 UJ	5.8 U	5.2 UJ	5.6 U	5.4 U	150 UJ	440 U	43 U	44 U	42 U	43 U	41 U
1,1,2-Trichloroethane	ug/kg	100	100	6600 X	420000	4600	24000	17000	46 U	48 U	4.8 UJ	5.5 U	5.1 UJ	5.2 UJ	5.8 UJ	5.2 UJ	5.6 U	5.4 U	150 U	440 U	43 U	44 U	42 U	43 U	41 U
1,1-Dichloroethane	ug/kg	18000	50000	15000	890000 C	230000	430000	2100000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	0.47 J	5.4 U	470	11000	43 U	44 U	42 U	43 U	41 U
1,1-Dichloroethene	ug/kg	140	140	2600	220000	62	330	1100	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	5.6 U	5.4 U	2900[bcdfgh]	440 U	43 U	44 U	42 U	43 U	41 U
1,2,4-Trichlorobenzene	ug/kg	4200	4200	5900 X	1100000 C	1100000 C	1100000 C	28000000	230 U	240 U	4.8 U	5.5 U	5.1 U	5.2 UJ	5.8 U	5.2 UJ	5.6 U	5.4 U	770 UJ	2200 U	220 U	220 U	210 U	210 U	210 U
1,2,4-Trimethylbenzene	ug/kg	2100	2100	570	110000 C	110000 C	110000 C	21000000	36 J	80 J	4.8 U	5.5 U	5.1 U	5.2 UJ	5.8 U	5.2 UJ	5.6 U	5.4 U	310 U	180 J	87 U	89 U	85 U	85 U	82 U
1,3,5-Trimethylbenzene	ug/kg	1800	1800	1100	94000 C	94000 C	94000 C	16000000	91 U	60 J	4.8 U	5.5 U	5.1 U	5.2 UJ	5.8 U	5.2 UJ	5.6 U	5.4 U	310 U	870 U	87 U	89 U	85 U	85 U	82 U
1,3-Dichlorobenzene	ug/kg	170	480	680	51000	26000	48000	79000	91 U	95 U	4.8 U	5.5 U	5.1 U	5.2 UJ	5.8 U	5.2 UJ	5.6 U	5.4 U	310 U	870 U	87 U	89 U	85 U	85 U	82 U
1,4-Dichlorobenzene	ug/kg	1700	1700	360	140000	19000	100000	77000	91 U	95 U	4.8 U	5.5 U	5.1 U	5.2 UJ	5.8 U	5.2 UJ	5.6 U	5.4 U	310 U	870 U	87 U	89 U	85 U	85 U	82 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	260000	760000	44000	27000000 C	27000000 C	27000000 C	29000000	680 U	710 U	19 U	22 U	20 U	21 U	23 U	21 U	22 U	22 U	2300 U	6600 U	650 U	670 U	630 U	640 U	620 U
Benzene	ug/kg	100	100	4000 X	220000	1600	8400	13000	46 U	14 J	4.8 U	5.5 U	5.1 U	0.29 J	5.8 U	5.2 U	5.6 U	5.4 U	150 U	440 U	43 U	44 U	42 U	43 U	41 U
cis-1,2-Dichloroethene	ug/kg	1400	1400	12000	640000 C	22000	41000	180000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	5.6 U	5.4 U	79 J	440 U	23 J	44 U	42 U	43 U	41 U
cis-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	NA	NA	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	5.6 U	5.4 U	150 UJ	440 U	43 U	44 U	42 U	43 U	41 U
Ethylbenzene	ug/kg	1500	1500	360	140000 C	87000	140000 C	720000	46 U	18 J	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 UJ	5.6 U	5.4 U	150 U	440 U	43 U	44 U	42 U	43 U	41 U
Methyl tert butyl ether (MTBE)	ug/kg	800	800	140000 X	5900000 C	5900000 C	5900000 C	25000000	230 U	240 U	19 U	22 U	20 U	21 U	23 U	21 U	22 U	22 U	770 U	2200 U	220 U	220 U	210 U	210 U	210 U
PNAs	ug/kg	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/kg	2700	2700	2100 X	270000	250000	520000 C	970000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 UJ	5.6 U	5.4 U	150 U	440 U	43 U	44 U	42 U	43 U	41 U
Tetrachloroethene	ug/kg	100	100	1200 X	88000 C	11000	21000	170000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 UJ	5.6 U	5.4 U	150 U	440 U	1100[bc]	44 U	42 U	43 U	41 U
Toluene	ug/kg	16000	16000	5400	250000 C	250000 C	250000 C	2800000	91 U	95 U	0.50 J	0.61 J	5.1 U	0.36 J	5.8 U	5.2 UJ	5.6 U	5.4 U	310 U	870 U	87 U	89 U	85 U	85 U	82 U
trans-1,2-Dichloroethene	ug/kg	2000	2000	30000 X	1400000 C	23000	43000	280000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	5.6 U	5.4 U	150 U	440 U	43 U	44 U	42 U	43 U	41 U
trans-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	NA	NA	46 UJ	48 UJ	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 UJ	5.6 U	5.4 U	150 UJ	440 U	43 U	44 U	42 U	43 U	41 U
Trichloroethene	ug/kg	100	100	4000 X	440000	1000	1900	11000	46 U	48 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	5.6 U	5.4 U	3300[bcfg]	4600[bcdfg]	2700[bcfg]	44 U	42 U	43 U	41 U
Vinyl chloride	ug/kg	40	40	260 X	20000	270	2800	4200	36 U	38 U	4.8 U	5.5 U	5.1 U	5.2 U	5.8 U	5.2 U	1.8 J	5.4 U	120 U	350 U	35 U	36 U	34 U	34 U	33 U
Xylenes (total)	ug/kg	5600	5600	820	150000 C	150000 C	150000 C	46000000	140 U	130 J	9.6 U	11 U	10 U	10 U	12 U	10 UJ	11 U	11 U	460 U	130 J	130 U	130 U	130 U	130 U	120 U
SVOCs																									
2-Methylnaphthalene	ug/kg	57000	170000	4200	5500000	2700000	4900000	1500000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Acenaphthene	ug/kg	300000	880000	8700	970000	190000000	350000000	81000000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Acenaphthylene	ug/kg	5900	17000	ID	440000	1600000	3000000	2200000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Anthracene	ug/kg	41000	41000	ID	41000	1000000000 D	1000000000 D	1400000000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Benzo(a)anthracene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Benzo(a)pyrene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Benzo(b)fluoranthene	ug/kg	NLL	NLL	NLL	NLL	ID	ID	ID	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Benzo(g,h,i)perylene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Benzo(k)fluoranthene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Chrysene	ug/kg	NLL	NLL	NLL	NLL	ID	ID	ID	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Dibenz(a,h)anthracene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Fluoranthene	ug/kg	730000	730000	5500	730000	1000000000 D	1000000000 D	740000000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Fluorene	ug/kg	390000	890000	5300	890000	580000000	1000000000 D	130000000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Naphthalene	ug/kg	35000	100000	730	2100000	250000	470000	300000	300 U	440 J	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Phenanthrene	ug/kg	56000	160000	2100	1100000	2800000	5100000	160000	300 U	6300 U	280 U	290 UJ	280 U	7.3 J	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Pyrene	ug/kg	480000	480000	ID	480000	1000000000 D	1000000000 D	650000000	300 U	6300 U	280 U	290 UJ	280 U	270 U	310 U	300 U	300 U	290 U	290 U	--	--	--	--	--	--
Metals*																									
Aluminum	ug/kg	1000	1000	NA	1000000000 D	NLV	NLV	NLV	--	--	1730000	2330000	2110000	2360000	4670000	2920000	4960000	2220000	1390000	--	--	--	--	--	--
Antimony	ug/kg	4300	4300	94000 X	49000000	NLV	NLV	NLV	--	--	170 UJ	180 UJ	170 UJ	170 UJ	210 J	170 J	180 UJ	180 UJ	280 J	--	--	--	--	--	--
Arsenic	ug/kg	4600	4600	4600	2000000	NLV	NLV	NLV	--	--	3700	3700	5000	5400	5500	5700	7100[bcd]	4000	5900[bcd]	--	--	--	--	--	--
Chromium	ug/kg	30000	30000	3300	140000000	NLV	NLV	NLV	--	--	4300	6300	5400	5700	9700	7700	10600	4600	5400	--	--	--	--	--	--
Copper	ug/kg	5800000	5800000	G	1000000000 D	NLV	NLV	NLV	--	--	4500	7600	10800	12400	11800	11800	15100	4900	11300	--	--	--	--	--	--
Iron	ug/kg	6000	6000	NA	1000000000 D	NLV	NLV	NLV	--	--	4980000	6930000	6030000	7130000	11300000	7180000	13300000[bc]	5860000	5600000	--	--	--	--	--	--
Lead	ug/kg	700000	700000	G, X	ID	NLV	NLV	NLV	7700	10400	2900	5900	5200	5300	7400	4600	6600	3100	4500	--	--	--	--	--	--
Manganese	ug/kg	1000	1000	G, X	180000000	NLV	NLV	NLV	--	--	123000	214000	197000	157000	314000	199000	286000	155000	122000	--	--	--	--	--	--
Mercury	ug/kg	1700	1700	50 M	47000	48000	89000	52000	--	--	43 U	44 U	42 U	41 U	47 U	46 U	45 U	45 U	44 U	--	--	--	--	--	--
Selenium	ug/kg	4000	4000	400	78000000	NLV	NLV	NLV	--	--	110 J	190	250	240	400	1800[d]	400	120 J	460[d]	--	--	--	--	--	--
Silver	ug/kg	4500	13000	100 M	200000000	NLV	NLV	NLV	--	--	86 U	89 U	84 U	83 U	94 U	92 U	90 U	89 U	88 U	--	--	--	--	--	--
Zinc	ug/kg	2400000	5000000	G	1000000000 D	NLV	NLV	NLV	--	--	15100	32000	28000	30700	32000	34600	33600	15300	46000	--	--	--	--	--	--
PCBs																									
Aroclor-1016 (PCB-1016)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	300 UJ	310 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons																									
Ethylene glycol	ug/kg	300000	840000	NA	110000000 C	NLV	NLV	NLV	--	--	11000 U	11000 U	11000 U	10000 U	12000 U	11000 U	11000 U	11000 U	11000 U	--	--	--	--	--	--
Propylene glycol	ug/kg	3000000	8400000	5800000	110000000 C	NLV	NLV	NLV	--	--	43000 U	44000 U	42000 U	41000 U	47000 U	46000 U	45000 U	45000 U	44000 U	--	--	--	--	--	--
		NA	NA	NA	NA	NA	NA	NA																	

Notes:

NA - Criteria not available
NLL - Not likely to leach
ID - Insufficient data available to calculate risk based criterion
U - Not present at or above the associated value.
J - Indicates an estimated value.
UB - The analyte / compound was detected in the associated blank.
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
-- Not analyzed
ug/kg - microgram per kilogram
* - Not all VOCs, PNAs or SVOCs shown because results were either ND or not analyzed (--)

TABLE 1

SOIL ANALYTICAL RESULTS 2007-2012
DUCO STORES
PCC-WEST
PONTIAC, MICHIGAN

Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)																					
Sample Location:		*Drinking Water Protection*	*Non-Residential Drinking Water Protection*	*Groundwater Surface Water Interface Protection*	*Groundwater Contact Protection*	*Soil Volatilization to Indoor Air Inhalation*	*Non-Residential Soil Volatilization to Indoor Air Inhalation*	*Infinite Source Volatile Soil Inhalation*	*SB-13-12*	*SB-14-12*	*SB-15-12*	*SB-16-12*	*SB-16-12*	*SB-17-12*	*SB-18-12*	*SB-18-12*	*SB-19-12*	*SB-20-12*	*SB-21-12*	*SB-21-12*	*SB-22-12*	*SB-22-12*
Sample Depth:									*6-8 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*10-12 ft BGS*	*10-12 ft BGS*	*10-12 ft BGS*	*9.5-11.5 ft BGS*	*10-12 ft BGS*	*4.5-6.5 ft BGS*	*10-12 ft BGS*	*5.5-7.5 ft BGS*	*10-12 ft BGS*
Sample Date:									*07/31/2012*	*07/31/2012*	*07/30/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*	*10/02/2012*
Sample Type:																						
Parameters		*b*	*c*	*d*	*e*	*f*	*g*	*h*														
	Units																					
VOCs*																						
1,1,1-Trichloroethane	ug/kg	4000	4000	1800	460000 C	250000	460000	3800000	--	--	39 U	86	880	81	36 J	43	500	44 U	43	45 U	44 U	45 U
1,1,2,2-Tetrachloroethane	ug/kg	170	700	1600 X	94000	4300	23000	10000	--	--	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
1,1,2-Trichloroethane	ug/kg	100	100	6600 X	420000	4600	24000	17000	--	--	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
1,1-Dichloroethane	ug/kg	18000	50000	15000	890000 C	230000	430000	2100000	--	--	39 U	36 J	140	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
1,1-Dichloroethene	ug/kg	140	140	2600	220000	62	330	1100	--	--	39 U	43 U	280[bcf]	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
1,2,4-Trichlorobenzene	ug/kg	4200	4200	5900 X	1100000 C	1100000 C	1100000 C	28000000	--	--	190 U	210 U	220 U	240 U	200 U	200 U	230 U	220 U	210 U	230 U	220 U	230 U
1,2,4-Trimethylbenzene	ug/kg	2100	2100	570	110000 C	110000 C	110000 C	21000000	84 U	85 U	200	77 J	18 J	95 U	81 U	80 U	93 U	88 U	86 U	18 J	87 U	71 J
1,3,5-Trimethylbenzene	ug/kg	1800	1800	1100	94000 C	94000 C	94000 C	16000000	84 U	85 U	74 J	85 U	89 U	95 U	81 U	80 U	93 U	88 U	86 U	90 U	87 U	21 J
1,3-Dichlorobenzene	ug/kg	170	480	680	51000	26000	48000	79000	--	--	78 U	85 U	89 U	95 U	81 U	80 U	93 U	88 U	86 U	90 U	87 U	91 U
1,4-Dichlorobenzene	ug/kg	1700	1700	360	140000	19000	100000	77000	--	--	78 U	85 U	89 U	95 U	81 U	80 U	93 U	88 U	86 U	90 U	87 U	91 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	260000	760000	44000	27000000 C	27000000 C	27000000 C	29000000	--	--	580 U	640 U	670 U	710 U	610 U	600 U	690 U	660 U	640 U	680 U	650 U	680 U
Benzene	ug/kg	100	100	4000 X	220000	1600	8400	13000	42 U	42 U	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
cis-1,2-Dichloroethene	ug/kg	1400	1400	12000	640000 C	22000	41000	180000	--	--	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
cis-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	NA	NA	--	--	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
Ethylbenzene	ug/kg	1500	1500	360	140000 C	87000	140000 C	720000	42 U	42 U	19 J	10 J	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
Methyl tert butyl ether (MTBE)	ug/kg	800	800	140000 X	5900000 C	5900000 C	5900000 C	25000000	210 U	210 U	190 U	210 U	220 U	240 U	200 U	200 U	230 U	220 U	210 U	230 U	220 U	230 U
PNAs	ug/kg	NA	NA	NA	NA	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/kg	2700	2700	2100 X	270000	250000	520000 C	970000	--	--	8.8 J	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
Tetrachloroethene	ug/kg	100	100	1200 X	88000 C	11000	21000	170000	--	--	39 U	43 U	23 J	47 U	40 U	40 U	35 J	44 U	950[bc]	45 U	44 U	45 U
Toluene	ug/kg	16000	16000	5400	250000 C	250000 C	250000 C	2800000	84 U	85 U	18 J	85 U	25 J	95 U	81 U	80 U	93 U	88 U	86 U	90 U	87 U	91 U
trans-1,2-Dichloroethene	ug/kg	2000	2000	30000 X	1400000 C	23000	43000	280000	--	--	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
trans-1,3-Dichloropropene	ug/kg	NA	NA	NA	NA	NA	NA	NA	--	--	39 U	43 U	44 U	47 U	40 U	40 U	46 U	44 U	43 U	45 U	44 U	45 U
Trichloroethene	ug/kg	100	100	4000 X	440000	1000	1900	11000	--	--	39 U	71	190[bc]	1000[bc]	40 U	40 U	420[bc]	44 U	130[bc]	45 U	44 U	45 U
Vinyl chloride	ug/kg	40	40	260 X	20000	270	2800	4200	--	--	31 U	34 U	36 U	38 U	32 U	32 U	37 U	35 U	34 U	36 U	35 U	120[bc]
Xylenes (total)	ug/kg	5600	5600	820	150000 C	150000 C	150000 C	46000000	130 U	130 U	78 J	59 J	53 J	140 U	120 U	120 U	140 U	130 U	130 U	140 U	130 U	140 U
SVOCs																						
2-Methylnaphthalene	ug/kg	57000	170000	4200	5500000	2700000	4900000	1500000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	ug/kg	300000	880000	8700	970000	190000000	350000000	81000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	ug/kg	5900	17000	ID	440000	1600000	3000000	2200000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	ug/kg	41000	41000	ID	41000	1000000000 D	1000000000 D	1400000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	ug/kg	NLL	NLL	NLL	NLL	ID	ID	ID	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	ug/kg	NLL	NLL	NLL	NLL	ID	ID	ID	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	ug/kg	730000	730000	5500	730000	1000000000 D	1000000000 D	740000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	ug/kg	390000	890000	5300	890000	580000000	1000000000 D	130000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	NLL	NLL	NLL	NLL	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	ug/kg	35000	100000	730	2100000	250000	470000	300000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	ug/kg	56000	160000	2100	1100000	2800000	5100000	160000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	ug/kg	480000	480000	ID	480000	1000000000 D	1000000000 D	650000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals*																						
Aluminum	ug/kg	1000	1000	NA	1000000000 D	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	ug/kg	4300	4300	94000 X	49000000	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	ug/kg	4600	4600	4600	2000000	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	ug/kg	30000	30000	3300	140000000	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	ug/kg	5800000	5800000	G	1000000000 D	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	ug/kg	6000	6000	NA	1000000000 D	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	ug/kg	700000	700000	G, X	ID	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	ug/kg	1000	1000	G, X	180000000	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	ug/kg	1700	1700	50 M	47000	48000	89000	52000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	ug/kg	4000	4000	400	78000000	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	ug/kg	4500	13000	100 M	200000000	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	ug/kg	2400000	5000000	G	1000000000 D	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016 (PCB-1016)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/kg	NLL	NLL	NLL	NLL	3000000	16000000	240000	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Petroleum Hydrocarbons																						
Ethylene glycol	ug/kg	300000	840000	NA	110000000 C	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propylene glycol	ug/kg	3000000	8400000	5800000	110000000 C	NLV	NLV	NLV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		NA	NA	NA	NA	NA	NA	NA														

Notes:

NA - Criteria not available
NLL - Not likely to leach
ID - Insufficient data available to calculate risk based criterion
U - Not present at or above the associated value.
J - Indicates an estimated value.
UB - The analyte / compound was detected in the associated blank.
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
-- Not analyzed
ug/kg - microgram per kilogram
* - Not all VOCs, PNAs or SVOCs shown because results were either ND or not analyzed (--)

TABLE 2

GROUNDWATER ANALYTICAL RESULTS (2008-2013)
DUCO STORES
PCC-WEST
PONTIAC, MICHIGAN

Sample Location:		*Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)*			*SB-3-08*	*SB-3-08*	*SB-4-08*	*MW34-01*	*MW34-01*	*MW34-01*	*MW34-01*	*MW34-01*	*MW34-02*	*MW34-03*	*MW34-03*	*MW34-03*	*MW34-04*	*MW34-04*
Sample Date:		*Residential Drinking Water*	*Non-Residential Drinking Water*	*Groundwater Surface Water Interface*	*07/29/2008*	*07/29/2008*	*07/29/2008*	*08/18/2009*	*12/01/2009*	*12/01/2009*	*07/18/2013*	*07/18/2013*	*07/18/2013*	*08/18/2009*	*12/01/2009*	*07/18/2013*	*08/19/2009*	*08/19/2009*
Sample Type:						*Duplicate*				*Duplicate*		*Duplicate*						*Duplicate*
Parameters	*Units*	*a*	*b*	*c*														
VOCs*																		
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	17	1.5	0.79 J	17 U	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05 A	0.05 A	5.7 X	1.0 U	1.0 U	17 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dichloroethane	ug/L	5 A	5 A	360 X	1.0 U	1.0 U	17 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	45	1.0 U	0.22 J	17 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Benzene	ug/L	5 A	5 A	200 X	21[ab]	25[ab]	330 J[abc]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.32 J
cis-1,2-Dichloroethene	ug/L	70 A	70 A	620	1.0 UJ	1.0 UJ	17 UJ	--	--	--	1.0 U	1.0 U	1.0 U	--	--	1.0 U	--	--
Ethylbenzene	ug/L	74 E	74 E	18	2.4 J	2.7 J	27 J[c]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Isopropyl benzene	ug/L	800	2300	28	38[c]	39[c]	17 J	--	--	--	1.0 U	1.0 U	1.0 U	--	--	1.0 U	--	--
Toluene	ug/L	790 E	790 E	270	0.88 J	1.1	7.4 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Xylenes (total)	ug/L	280 E	280 E	41	2.0	2.0	11 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U
SVOCs																		
2-Methylnaphthalene	ug/L	260	750	19	20 U	12 U	27[c]	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Acenaphthene	ug/L	1300	3800	38	20 U	12 U	1.0 J	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Acenaphthylene	ug/L	52	150	ID	20 U	12 U	10 U	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Anthracene	ug/L	43 S	43 S	ID	20 U	12 U	10 U	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Benzo(a)anthracene	ug/L	2.1	8.5	ID	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(a)pyrene	ug/L	5 A	5 A	ID	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	1.5 S,AA	1.5 S,AA	ID	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	1 M	1 M	NA	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(k)fluoranthene	ug/L	1 M	1 M	NA	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Chrysene	ug/L	1.6 S	1.6 S	ID	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Dibenz(a,h)anthracene	ug/L	2 M	2 M	ID	8.0 U	5.0 U	4.0 U	2.0 U	2.0 U	2.0 U	--	--	--	2.0 U	2.0 U	--	2.0 U	2.0 U
Fluoranthene	ug/L	210 S	210 S	1.6	4.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Fluorene	ug/L	880	2000 S	12	20 U	12 U	10 U	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	ug/L	2 M	2 M	ID	8.0 U	5.0 U	4.0 U	2.0 U	2.0 U	2.0 U	--	--	--	2.0 U	2.0 U	--	2.0 U	2.0 U
Naphthalene	ug/L	520	1500	11	1.0 J	0.84 J	44[c]	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Phenanthrene	ug/L	52	150	2 M	8.0 U	5.0 U	1.8 J	2.0 U	2.0 U	2.0 U	--	--	--	2.0 U	2.0 U	--	2.0 U	2.0 U
Pyrene	ug/L	140 S	140 S	ID	20 U	12 U	10 U	5.0 U	5.0 U	5.0 U	--	--	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Metals																		
Lead	ug/L	4 L	4 L	G,X	--	--	--	3.0 U	3.0 U	3.0 U	--	--	--	3.0 U	3.0 U	--	3.0 U	3.0 U
Petroleum Hydrocarbons																		
Ethylene glycol					10000 U	10000 U	10000 U	--	--	--	--	--	--	--	--	--	--	--
Propylene glycol	ug/L	NA	NA	NA	10000 U	10000 U	10000 U	--	--	--	--	--	--	--	--	--	--	--

Notes:

NA - Criteria not available
ID - Insufficient data available to calculate risk based criterion
U - Not present at or above the associated value.
J - Indicates an estimated value.
UB - The analyte / compound was detected in the associated blank.
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
-- Not analyzed
ug/L - microgram per liter
* - Not all VOCs shown because results were either ND or not analyzed (--)

TABLE 2

GROUNDWATER ANALYTICAL RESULTS (2008-2013)
DUCO STORES
PCC-WEST
PONTIAC, MICHIGAN

		Michigan Act 451, Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels: Residential and Non-Residential Generic Cleanup Criteria (1)															
Sample Location:		***Residential***	***Non-Residential***	***Groundwater***	***MW34-04***	***MW34-04***	***MW34-05***	***MW34-05***	***MW34-05***	***MW34-06***	***MW34-06***	***MW34-06***	***MW34-07***	***MW34-07***	***MW34-07***	***MW34-08***	***MW34-08***
Sample Date:		***Drinking Water***	***Drinking Water***	***Surface Water***	***12/01/2009***	***07/18/2013***	***08/18/2009***	***11/30/2009***	***07/18/2013***	***08/19/2009***	***12/01/2009***	***07/18/2013***	***08/18/2009***	***11/30/2009***	***07/18/2013***	***08/19/2009***	***12/01/2009***
Sample Type:				***Interface***													
Parameters	***Units***	***a***	***b***	***c***													
VOCs*																	
1,2,4-Trimethylbenzene	ug/L	63 E	63 E	17	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05 A	0.05 A	5.7 X	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
1,2-Dichloroethane	ug/L	5 A	5 A	360 X	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	72 E	72 E	45	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
Benzene	ug/L	5 A	5 A	200 X	1.0 U	0.13 J	1.0 U	1.0 U	0.13 J	2.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70 A	70 A	620	--	1.0 U	--	--	1.0 U	--	--	1.3	--	--	1.0 U	--	--
Ethylbenzene	ug/L	74 E	74 E	18	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
Isopropyl benzene	ug/L	800	2300	28	--	0.50 J	--	--	1.0 U	--	--	1.0 U	--	--	1.0 U	--	--
Toluene	ug/L	790 E	790 E	270	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
Xylenes (total)	ug/L	280 E	280 E	41	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U
SVOCs																	
2-Methylnaphthalene	ug/L	260	750	19	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Acenaphthene	ug/L	1300	3800	38	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Acenaphthylene	ug/L	52	150	ID	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Anthracene	ug/L	43 S	43 S	ID	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Benzo(a)anthracene	ug/L	2.1	8.5	ID	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(a)pyrene	ug/L	5 A	5 A	ID	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	1.5 S,AA	1.5 S,AA	ID	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	1 M	1 M	NA	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Benzo(k)fluoranthene	ug/L	1 M	1 M	NA	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Chrysene	ug/L	1.6 S	1.6 S	ID	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Dibenz(a,h)anthracene	ug/L	2 M	2 M	ID	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U
Fluoranthene	ug/L	210 S	210 S	1.6	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U	--	1.0 U	1.0 U
Fluorene	ug/L	880	2000 S	12	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	ug/L	2 M	2 M	ID	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U
Naphthalene	ug/L	520	1500	11	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Phenanthrene	ug/L	52	150	2 M	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U
Pyrene	ug/L	140 S	140 S	ID	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U
Metals																	
Lead	ug/L	4 L	4 L	G,X	3.0 U	--	3.0 U	3.0 U	--	3.0 U	3.0 U	--	3.0 U	3.0 U	--	3.0 U	3.0 U
Petroleum Hydrocarbons																	
Ethylene glycol					--	--	--	--	--	--	--	--	--	--	--	--	--
Propylene glycol	ug/L	NA	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

NA - Criteria not available
ID - Insufficient data available to calculate risk based criterion
U - Not present at or above the associated value.
J - Indicates an estimated value.
UB - The analyte / compound was detected in the associated blank.
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 9/28/2012, pursuant to 1994 PA 451 as amended.
-- Not analyzed
ug/L - microgram per liter
* - Not all VOCs shown because results were either ND or not analyzed (--)

ATTACHMENT A

SOIL BORING LOGS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-1-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	ASPHALT	0.30					
	GW-GRAVELLY SANDS (aggregate base for asphalt), fine gravels, fine grained sands, poorly graded, gray, dry	1.50					
2	SP-SANDS, fine grained, poorly graded, medium brown, moist, clean fill		6-1/4" BOREHOLE	1GP		70	
4	- trace silts at 3.5ft BGS		BACKFILLED WITH SOIL CUTTINGS				
6				5-7' -001			
	- wet at 7.0ft BGS						
8				2GP		100	
10	END OF BOREHOLE @ 10.0ft BGS	10.00					
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-2-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	CONCRETE	0.50					
	GP/SP-GRAVELLY SAND BASE (aggregate base)	0.70					
2	CL-SANDY CLAYS, fine grained, low plasticity, stiff, medium to dark brown, dry - moist at 1.5ft BGS - trace fine gravels, trace fine sands at 2.0ft BGS		6-1/4" BOREHOLE BACKFILLED WITH SOIL CUTTINGS	1GP		100	
4							
6		6.60					
	CL-SILTY CLAYS, trace fine sands, low plasticity, stiff, dark brown, moist	7.40		2GP (7.5-9' -002)		100	
8	SP-SANDS, trace silts, fine to medium grained, poorly graded, dark brown, very moist - 0.2' with silts, very faint odor at 8.4ft BGS - wet at 9.5ft BGS - very fine to fine grained at 10.5ft BGS						
10							
12	CL-SILTY CLAYS, low plasticity, firm, gray to dark brown, very moist - moist at 12.5ft BGS	11.80		3GP		80	
14							
	END OF BOREHOLE @ 15.0ft BGS	15.00					
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-3-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	CONCRETE	0.50					
2	SC-CLAYEY SANDS, trace fine gravels, fine grained, poorly graded, medium brown, moist		6-1/4" BOREHOLE	1GP		60	
4	CL-SILTY CLAYS, trace fine sands, low plasticity, firm, medium brown, moist	4.40	BACKFILLED WITH SOIL CUTTINGS				
6	SP-SANDS, trace silts, fine grained, poorly graded, medium brown, moist - 0.2' with silts, almost clayey sands at 7.0ft BGS	6.00		2GP		90	
8				8-10' -003			
10				10-12' -004			
12	- fine with some medium grained at 12.2ft BGS - grayish brown, wet, strong odor at 12.5ft BGS - trace silts, very fine to fine grained, gray at 12.8ft BGS			3GP		100	
14	- with silts, black and gray banding at 14.5ft BGS	15.00					
16	END OF BOREHOLE @ 15.0ft BGS						
18	NOTE: 12.5-13' INTERVAL TESTED POSITIVE FOR PRODUCT USING SUDAN IV JAR TEST						
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-4-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	CONCRETE	0.50					
	CL-SANDY CLAYS, fine grained, low plasticity, firm, medium brown, moist						
2				1GP		70	
			6-1/4" BOREHOLE				
4	- 0.2' black at 4.6ft BGS						
			BACKFILLED WITH SOIL CUTTINGS				
6							
8				2GP		70	
				8-10' -005			
		9.50					
10	SP-SANDS, trace silts, fine to medium grained, poorly graded, brown, very moist						
				10-12' -006			
12	- wet, odor at 12.0ft BGS						
		12.60		3GP		100	
	CL-SILTY CLAYS, trace fine sands, low plasticity, firm, gray, wet	13.60					
14	SP-SANDS, medium grained, poorly graded, gray, strong odor						
	- trace fine gravels at 14.0ft BGS	15.00					
16	END OF BOREHOLE @ 15.0ft BGS						
	NOTE: 14-14.5' INTERVAL TESTED POSITIVE FOR PRODUCT USING SUDAN IV JAR TEST						
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-5-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	CONCRETE (3/4" rebar at base of concrete)						
	SC-CLAYEY SANDS, fine grained, poorly graded, brown, moist	0.70	6-1/4" BOREHOLE; BACKFILLED WITH SOIL CUTTINGS	1GP		50	
2							
4							
6							
8				2GP		20	
10							
	CL-SILTY CLAYS, trace fine sands, low plasticity, firm, brown and gray, moist	11.00		3GP		40	
12							
14	- gray at 15.0ft BGS						
16				15-16' -007			
	SP-SANDS, fine to medium grained, poorly graded, gray, wet	16.40		4GP		60	
18	- brown at 18.5ft BGS - with silts at 18.8ft BGS						
20	END OF BOREHOLE @ 20.0ft BGS	20.00					
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-6-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	CONCRETE	0.50					
2	SP-SANDS, trace silts, fine grained, poorly graded, brown, moist - with silts at 1.5ft BGS		6-1/4" BOREHOLE	1GP		60	
4							
6	- trace fine gravels at 5.0ft BGS		BACKFILLED WITH SOIL CUTTINGS				
8	- wet at 8.4ft BGS			2GP -7-8' -008		100	
10	END OF BOREHOLE @ 10.0ft BGS	10.00					
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-7-08
DATE COMPLETED: July 28, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE
	CONCRETE	0.50					
	SP-SANDS, trace silts, fine grained, poorly graded, brown, moist						
2	- trace fine gravels at 1.0ft BGS			1GP		60	
			6-1/4" BOREHOLE				
4							
			BACKFILLED WITH SOIL CUTTINGS				
6							
	- dark brown at 7.5ft BGS			2GP		30	
8							
10							
	- gray/brown at 10.5ft BGS						
	- fine grained, with some medium grained at 11.5ft BGS			10.5-12' -009			
12	- wet at 12.5ft BGS			3GP		50	
	CL-SILTY CLAYS, trace fine grained sands, low plasticity, firm, gray, wet	13.20					
14	- moist at 14.2ft BGS						
	END OF BOREHOLE @ 15.0ft BGS	15.00					
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-8-08
DATE COMPLETED: July 30, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.80						
	CL-SILTY CLAYS, with fine gravels, trace fine sands, low plasticity, firm, medium brown, moist	1.80						1.1
2	SP-SANDS, with silts, with fine gravels, fine to medium grained, poorly graded, brown, moist		6-1/4" BOREHOLE	1GP		50		
4		4.50	BACKFILLED WITH SOIL CUTTINGS					0.4
	CL-SILTY CLAYS, trace fine sands, low plasticity, firm, gray, moist							
6		6.50						0.0
	SC-CLAYEY SANDS, trace fine gravels, fine to medium grained, poorly graded, brown, moist	7.20		2GP		70		
8	CL-SILTY CLAYS, trace fine sands, low plasticity, firm, gray, moist - more like SANDY CLAYS, brown at 9.2ft BGS			8-10' -013				0.0
10	- wet at 10.3ft BGS	10.50						
	GP-GRAVELLY SANDS, wet	11.50						0.0
12	CL-SILTY CLAYS, trace fine sands, low plasticity, firm, gray, wet - moist at 11.8ft BGS			3GP		30		
14								0.0
	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-9-08
DATE COMPLETED: July 29, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: N. SHANKS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
2	SC-CLAYEY SANDS, trace fine gravels, compact, fine to medium grained, poorly graded, tan, moist							0.0
			6-1/4" BOREHOLE	1GP		60		
4		4.00						0.0
	CL-SILTY CLAYS, trace fine grained sands, firm, low plasticity, brown, moist		BACKFILLED WITH SOIL CUTTINGS					
6								0.0
	- 2" sand lens at 7.5ft BGS			2GP		70		
8								0.0
		9.00						
10	SP-SANDS, trace silts, compact, fine to medium grained, poorly graded, brown, moist							
				10-12' -011				0.0
12		12.00						
	CL-CLAYS, trace silts and fine grained sands, firm, low plasticity, gray, moist			3GP		80		
14								0.0
	- with silts at 15.0ft BGS							
16								0.0
				4GP		100		
18								0.0
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-10-08
DATE COMPLETED: July 31, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
2	SP-SANDS, with silts, trace fine to medium gravels, fine grained, poorly graded, medium brown, moist	2.50	6-1/4" BOREHOLE	1GP				0.0
4	CL-CLAYS, trace fine sands, trace fine gravels, low plasticity, firm, medium brown, moist - stiff at 4.0ft BGS		BACKFILLED WITH SOIL CUTTINGS					
6								0.0
8	- brownish gray at 8.5ft BGS			2GP 7.5-9.5' -017 -018		100		
10	- 0.4' SP-SANDS seam, wet at 9.8ft BGS - with sands at 10.2ft BGS							
12								0.0
14				3GP		60		
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-11-08
DATE COMPLETED: July 30, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE (bluish/gray)	1.00						
2	SM-SILTY SANDS, trace fine gravels, fine to medium grained, poorly graded, brown, moist			1GP		40		0.0
4	- medium grained, trace coarse grained at 3.5ft BGS		6-1/4" BOREHOLE; BACKFILLED WITH SOIL CUTTINGS					0.0
6	CL-SILTY CLAYS, trace fine grained sands, low plasticity, firm, gray, moist	6.00						0.8
8	- 0.5' with fine to medium gravels at 6.5ft BGS - 0.4' crushed concrete at 7.8ft BGS			2GP 6.5-8.5' -014 -015		50		0.8
	GW-GRAVELLY SANDS, medium to coarse grained, well graded, dark brown, wet	8.60						
10	- REFUSAL, bent sampler tube at 10.0ft BGS	10.00						
	END OF BOREHOLE @ 10.0ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BUILDING 33 IM INVESTIGATION
PROJECT NUMBER: 7097-08
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-12-08
DATE COMPLETED: July 30, 2008
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: E. VARNAS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.20						2.2
2	CL-SANDY CLAYS, trace fine gravels, low plasticity, firm, brown, moist			1GP		50		
			6-1/4" BOREHOLE					
4								3.0
			BACKFILLED WITH SOIL CUTTINGS					
6	SP-SANDS, medium to coarse grained, poorly graded, grayish brown, moist	6.00						3.5
	CL-SILTY CLAYS, trace fine gravels, trace red brick, trace fine sands, low plasticity, stiff, moist	7.00		2GP		70		
8	- gray at 9.0ft BGS							1.6
10	- 1' SANDY CLAYS at 11.0ft BGS							2.5
12				11-12.5' -016 3GP		90		
	- very moist to wet at 13.0ft BGS							
14	- trace sands, moist at 13.5ft BGS							3.2
	END OF BOREHOLE @ 15.0ft BGS	15.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-1-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							0.3
2	SP/GP-SAND AND GRAVEL (FILL), fine to coarse sand, fine to coarse gravel, poorly graded, compact, brown, moist	1.50 2.00 2.50		1GP		85		0.1
4	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist		BACKFILLED WITH BENTONITE CHIPS					1.0
6	CL-SANDY CLAY (FILL), with silt, trace gravel, fine to coarse sand, fine to coarse gravel, low plasticity, stiff, brown, moist - trace asphalt debris at 3.5ft BGS		2-1/4" BOREHOLE	2GP		65		0.5
8	- no asphalt debris at 4.0ft BGS	8.50						
10	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	9.00		3GP		50		0.4
12	CL-SILTY CLAY, trace fine sand, low plasticity, firm, gray, moist			10-12'-019				0.2
14	END OF BOREHOLE @ 12.0ft BGS	12.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-2-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							0.9
2	SP/GP-SAND AND GRAVEL (FILL), fine to coarse sand, fine to coarse gravel, moderately graded, loose to compact, brown, moist	2.00 2.50		1GP		90		2.5
4	CL-SILTY CLAY (FILL), with sand, trace gravel, fine to medium sand, fine gravel, low plasticity, stiff, brown, moist	3.50	BACKFILLED WITH BENTONITE CHIPS	4-6' -018				0.7
6	SP-SAND (FILL), trace silt, fine to medium grained, poorly graded, compact, brown, moist	6.00	2-1/4" BOREHOLE	2GP		70		0.2
8	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, wet	7.00 8.00						
10	CL-SILTY CLAY, trace fine sand, low plasticity, stiff, gray, moist - very moist at 7.5ft BGS							
	END OF BOREHOLE @ 8.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-3-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.50						1.5
2	CL-CLAY (FILL), with sand, trace gravel, fine sand, fine to coarse gravel, low plasticity, stiff, brown, moist	2.00		1GP		70		1.7
4	SP-SAND (FILL), trace silt and gravel, fine sand, fine gravel, poorly graded, compact, brown, moist		BACKFILLED WITH BENTONITE CHIPS					0.2
6	- 2-1/2" silty clay lens, with fine to medium sand at 6.7ft BGS	6.90	2-1/4" BOREHOLE	2GP		80		0.1
8	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, wet	8.00						0.1
10	CL-SILTY CLAY, trace fine sand, low plasticity, soft, gray, moist			3GP		90		
				10-12'-001				0.2
12	- firm at 12.0ft BGS							0.1
14				4GP		100		0.1
16	END OF BOREHOLE @ 16.0ft BGS	16.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-4-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT	0.40						
2	SP-GRAVELLY SAND (FILL), fine sand, fine to coarse gravel, poorly graded, compact, brown, moist - with silt, trace fine gravel at 2.8ft BGS			1GP		75		1.8 0.7
4	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, loose to compact, brown	4.00	BACKFILLED WITH BENTONITE CHIPS	4-6' -004				0.1
6	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, wet	6.00 7.00	2-1/4" BOREHOLE	2GP		75		0.0
8	CH-SILTY CLAY, trace fine sand, low plasticity, soft, gray, moist - firm at 7.5ft BGS							0.0
10				3GP 10-12' -003		85		0.0
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-5-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.25						0.9
2	SP/GP-SAND AND GRAVEL (FILL), trace concrete debris, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	3.00		1GP 2-4' -016		70		9.9
4	CL-SANDY CLAY (FILL), trace gravel, fine to medium sand, fine to coarse gravel, low plasticity, stiff, brown, moist - mottled, trace staining at 3.25ft BGS		BACKFILLED WITH BENTONITE CHIPS					0.2
6	- with silt, not mottled, no staining at 3.5ft BGS - no silt, firm at 4.0ft BGS		2-1/4" BOREHOLE	2GP 5.5-7.5' -017		65		0.1
8	- soft at 7.0ft BGS	7.85						
	SP/GP-SAND AND GRAVEL (FILL), trace concrete debris, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, wet	9.00 9.25						0.1
10				3GP		75		
	SP-SAND, with silt, fine to medium grained, poorly graded, compact, gray, wet							0.0
12	CL-SILTY CLAY, trace fine sand, low plasticity, stiff, gray, very moist - moist at 10.0ft BGS	12.00						
14	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-6-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.50						0.1
2	GP-GRAVEL (FILL), coarse grained, compact, gray, moist	2.00		1GP		75		
	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, moist							0.1
4			BACKFILLED WITH BENTONITE CHIPS					
								0.0
6			2-1/4" BOREHOLE	2GP		50		
								0.0
8								
								0.0
10				3GP 9-11' -014		60		
	CL-SILTY CLAY, trace sand and gravel, fine sand, fine to coarse gravel, low plasticity, firm, brown, moist	11.00 11.50 12.00						0.0
12								
	SM-SILTY SAND, fine grained, compact, brown, wet							
14	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-7-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
2	SP-SAND (FILL), trace silt and gravel, fine to coarse sand, fine to coarse gravel, poorly graded, loose to compact, brown, moist			1GP		70		0.1
4			BACKFILLED WITH BENTONITE CHIPS					0.1
6			2-1/4" BOREHOLE	2GP		70		0.1
8								0.1
10				3GP		65		0..0
				10-12' -020				0.1
12	SP-SAND, with silt, trace gravel, fine to medium sand, fine to coarse gravel, poorly graded, loose to compact, brown, moist - wet at 12.0ft BGS	11.50						0.0
14				4GP		60		0.0
16	END OF BOREHOLE @ 16.0ft BGS	16.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-8-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							2.8
2	SP-SAND (FILL), trace silt and gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, moist	1.50		1GP		85		2.9
4	- with silt at 4.8ft BGS		BACKFILLED WITH BENTONITE CHIPS					0.7
6			2-1/4" BOREHOLE	2GP		60		0.2
8								0.1
10				3GP (9.5-11.5' -002)		45		0.1
	- wet at 11.5ft BGS							
12	CL-SILTY CLAY, trace sand and gravel, fine to medium sand, fine gravel, low plasticity, firm, brown, moist	11.85 12.00						
14	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-9-12
DATE COMPLETED: July 30, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT	0.65						
2	SP-SAND (FILL), with gravel, fine sand, fine to coarse gravel, poorly graded, compact, brown, moist - trace silt and gravel at 1.2ft BGS			1GP		75		1.5 0.0
4			BACKFILLED WITH BENTONITE CHIPS					0.1
6			2-1/4" BOREHOLE	2GP (5.5-7.5' -005)		55		0.1
8	SC-CLAYEY SAND (FILL), trace gravel, fine to medium sand, fine to coarse gravel, loose to compact, brown, wet	7.50 8.00						0.1
10	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine gravel, poorly graded, compact, brown, wet	9.50		3GP (10-12' -006)		80		0.1
12	CL-SILTY CLAY, trace fine sand, low plasticity, firm, gray, moist	12.00						
	END OF BOREHOLE @ 12.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-10-12
DATE COMPLETED: July 31, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
	SP/GP-SAND AND GRAVEL (FILL), fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	0.70						0.0
2				1GP		80		
	CL-SANDY CLAY (FILL), with silt, trace gravel, fine to medium sand, fine to coarse gravel, low plasticity, stiff, brown, moist							0.0
4			BACKFILLED WITH BENTONITE CHIPS					
								0.0
6	SP-SAND (FILL), trace silt and gravel, fine to medium sand, fine to coarse gravel, poorly graded, compact, brown, moist	6.00	2-1/4" BOREHOLE	2GP		90		
								0.0
8	- with clay at 6.5ft BGS - fine to coarse sand at 7.5ft BGS							
								0.0
10				3GP		65		
	CL-SILTY CLAY, trace fine sand, low plasticity, firm, gray, moist	10.75		10-12' -021				0.0
12	END OF BOREHOLE @ 12.0ft BGS	12.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-16-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.60						
2	SP/GP-SAND AND GRAVEL, trace concrete, medium to fine grained, poorly graded, brown, moist			1GP 2-4' -026				0.6
	- staining at 3.3ft BGS	3.00						
4	CL-CLAY, trace gravel, medium to fine grained, stiff, moist		BACKFILLED WITH BENTONITE CHIPS					0.9
6			2-1/4" BOREHOLE	6-8' -027 2GP				0.5
8	SP/GP-SAND AND GRAVEL, coarse debris, gravel, brown, wet	8.00						0.1
10	END OF BOREHOLE @ 10.0ft BGS	10.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-17-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.83						
2	SC-CLAYEY SAND, trace gravel, medium to fine grained, fine gravel, poorly graded, brown, moist			1GP				0.1
4			BACKFILLED WITH BENTONITE CHIPS					
6			2-1/4" BOREHOLE					
8				2GP				0.1
10				10-12' -028				
12	SP-SAND, medium to fine grained, gray, moist	12.00		3GP				0.2
	CL-CLAY, moderate plasticity, gray	13.00						
14		15.00						
	END OF BOREHOLE @ 15.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-18-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.50						
	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist							0.6
2				1GP				0.5
4			BACKFILLED WITH BENTONITE CHIPS					0.5
6			2-1/4" BOREHOLE					0.6
8				2GP				0.5
10				10-12' -029/ 030'				
12				3GP				
14								
	END OF BOREHOLE @ 15.0ft BGS	15.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-19-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE							1.5
2	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist	1.50		1GP				1.2
4	CI-CLAY, trace sand, gravel, firm, moderate plasticity	3.50 / 4.00	BACKFILLED WITH BENTONITE CHIPS					0.7
6	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist		2-1/4" BOREHOLE					0.6
8				2GP				0.5
10				9.5-11.5' -031				0.2
12	CL-SILTY CLAY, trace silt, trace gravel, medium to fine grained, moderate plasticity, firm, gray, moist	11.50		3GP				0.1
14								
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-20-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	1.00						
2	CL-CLAY, with sand, trace gravel, medium to fine grained, low plasticity, stiff, brown	3.50		1GP				1.5
4	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist	8.00	BACKFILLED WITH BENTONITE CHIPS					1.0
6			2-1/4" BOREHOLE					1.2
8	CI-CLAY, trace silt, trace gravel, moderately soft, moderate plasticity, gray, moist	14.00		2GP				1.4
10				10-12' -032				
12	- firm at 12.0ft BGS	15.00		3GP				1.5
14	SP-SAND, with gravel, medium grained, gray/brown, wet							0.7
16	END OF BOREHOLE @ 15.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-21-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT							
2				1GP				1.1
4			BACKFILLED WITH BENTONITE CHIPS					1.2
	SP-SAND, trace silt, trace gravel, medium to fine grained, brown, moist	5.00	2-1/4" BOREHOLE	4.5-6.5' -033				
6								1.3
	CI-CLAY, trace silt, trace gravel, firm, moderate plasticity, gray, moist	7.00		2GP				
8								0.7
10				10-12' -034				0.6
12				3GP				
14								0.4
	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER - PCC WEST
PROJECT NUMBER: 007097
CLIENT: RACER
LOCATION: PONTIAC, MI

HOLE DESIGNATION: SB-22-12
DATE COMPLETED: October 2, 2012
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: M. CORAM

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT/PAVEMENT	0.50						
	SP-SAND, trace gravel, medium to fine grained, brown, moist		BACKFILLED WITH BENTONITE CHIPS; 2-1/4" BOREHOLE	1GP				1.5; 1.2; 1.5; 1.9
	SC-CLAYEY SAND, grave, medium to fine sand, brown, wet	7.50; 8.00		2GP				1.6
	CI-SILTY CLAY, trace sand, trace gravel, gray, moist			10-12" -029/ 030; 3GP				1.2; 1.0
	END OF BOREHOLE @ 15.0ft BGS	15.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

ATTACHMENT B

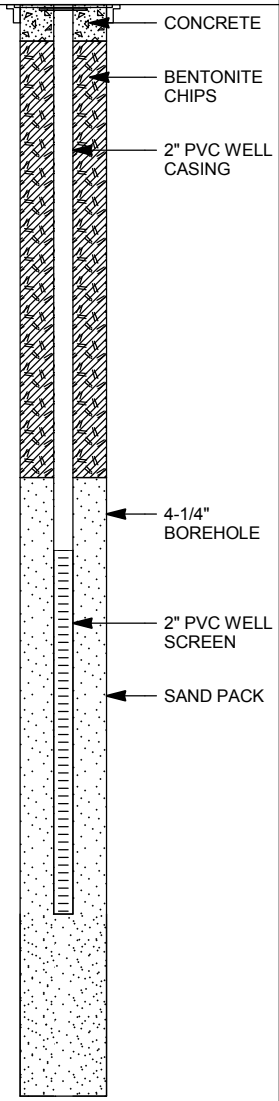
MONITORING WELL INSTALLATION LOGS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-01
DATE COMPLETED: October 1, 2007
DRILLING METHOD: 4-1/4" HSA
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.50
2	SC-CLAYEY SANDS, with gravels, medium grained sands, fine to coarse gravels, trace fine to coarse sands, moderately graded, loose, brown, moist	1.50
4	SP-SANDS, fine grained, with medium to coarse grained, trace fine gravels, poorly graded, loose, brown, moist	3.50
6	CL-CLAYS, with sands, fine grained, trace medium grained, poorly graded, low plasticity, firm, black, moist	
8	- with fine to coarse gravels at 5.0ft BGS - no gravels, trace fine sands, soft, brown, very moist to saturated at 8.5ft BGS	
10	- with fine sands, trace fine gravels, firm, black, moist at 9.5ft BGS	10.00
12	CH-CLAYS, with sands, fine grained, trace fine gravels, poorly graded, high plasticity, olive green, very moist to moist	12.50
14	CI-CLAYS, with silts, trace fine sands and fine gravels, poorly graded, moderate plasticity, stiff, brown, moist, mottled	
16		
18	SP-SANDS, medium grained with fine grained, poorly graded, loose, gray, very moist to saturated	18.00
20	- fine grained at 20.0ft BGS	
22	- fine to medium grained at 22.5ft BGS	
24		
26		
28		
30	END OF BOREHOLE @ 30.0ft BGS	30.00
32		
34		
36		



WELL DETAILS
Screened interval:
15.00 to 25.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
13.00 to 30.00ft BGS
Material: SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				0.0
1HSA		80		0.0
				0.0
2HSA		70		0.3
				0.0
				0.0
3HSA		100		0.0
				0.0
4HSA		100		0.0
				0.0
				0.0
5HSA		45		0.0
				0.0
6HSA		15		0.0
				0.0

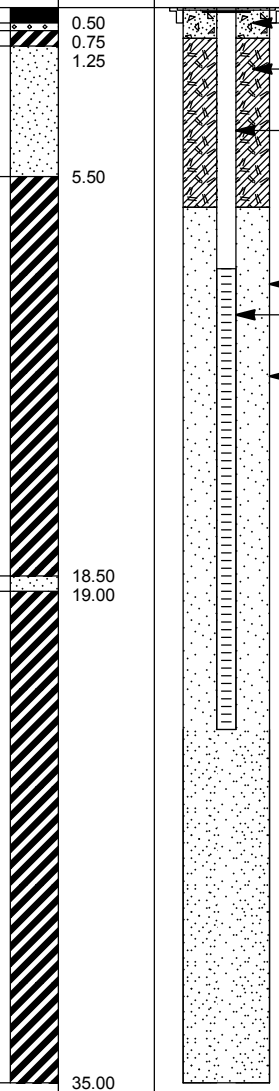
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-02
DATE COMPLETED: October 1, 2007
DRILLING METHOD: 4-1/4" HSA
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.50
	SW-SANDS AND GRAVELS, fine sands, fine to coarse gravels with medium to coarse sands, moderately graded, loose, brown, moist	0.75
	CI-CLAYS, with coarse gravels, poorly graded, low plasticity, stiff, brown, moist	1.25
	SP-SANDS, fine grained, poorly graded, loose, brown, moist - with coarse sands and fine to coarse gravels at 3.0ft BGS - fine gravels, trace coarse sands at 3.8ft BGS - with clays, very moist at 4.5ft BGS	5.50
	CH-CLAYS, with sands, fine grained, trace fine gravels, poorly graded, high plasticity, firm to stiff, gray, moist - decrease in sands, stiff at 10.0ft BGS - with fine to coarse gravels at 15.0ft BGS	18.50
	SP-SANDS, fine to medium grained, with fine to coarse gravels, poorly graded, loose, gray, very moist	19.00
	CH-CLAYS, with sands, fine grained, trace fine to coarse gravels, poorly graded, high plasticity, stiff, gray, moist	
	END OF BOREHOLE @ 35.0ft BGS	35.00



WELL DETAILS
Screened interval:
8.50 to 23.50ft BGS
Length: 15ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
6.50 to 35.00ft BGS
Material: SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1HSA		100		--
2HSA		100		0.0
3HSA		100		0.1
4HSA		100		0.0
5HSA		100		0.0
6HSA		100		0.0
7HSA		100		0.0
8HSA		100		0.0

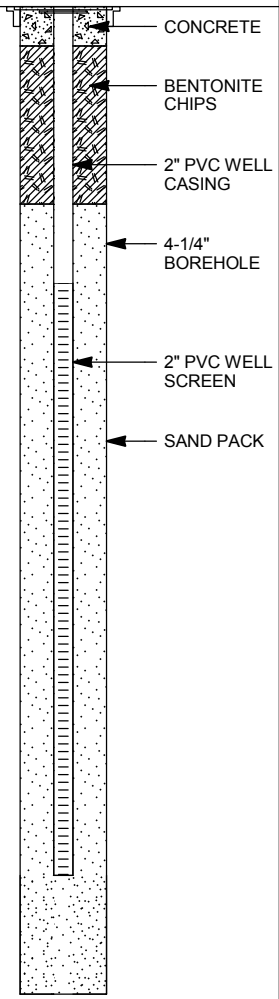
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-03
DATE COMPLETED: October 2, 2007
DRILLING METHOD: 4-1/4" HSA
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	ASPHALT	0.50
2	SW/GW-SANDS AND GRAVELS, fine sands, fine to coarse gravels, trace coarse sands, moderately graded, loose, brown, moist	2.50
4	SP-SANDS, fine sands, fine grained, trace medium grained, poorly graded, loose, brown, moist	
6		
8		
	- very moist at 9.0ft BGS	
10	- medium grained with fine grained at 10.0ft BGS	10.20
12	CH-CLAYS, with fine sands and coarse gravels, poorly graded, high plasticity, firm, gray, very moist - stiff at 12.0ft BGS	
14		
	- firm to stiff at 15.0ft BGS	
16		
18		
20		
22		
24		
	END OF BOREHOLE @ 25.0ft BGS	25.00
26		
28		
30		
32		
34		



WELL DETAILS
Screened interval:
7.00 to 22.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
5.00 to 25.00ft BGS
Material: SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				-
1HSA		80		3.1
				0.8
				0.0
2HSA		60		0.1
				0.0
3HSA		100		0.0
				0.0
				0.0
4HSA		100		0.0
				0.0
5HSA		100		0.7
				0.3

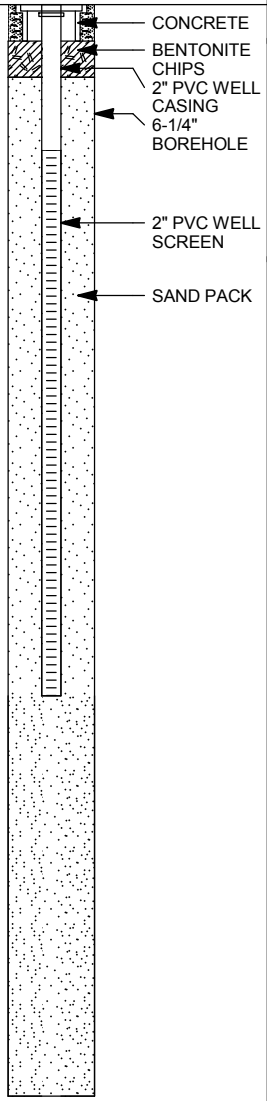
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-04
DATE COMPLETED: November 20, 2007
DRILLING METHOD: 6-1/4" HSA
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	CONCRETE	
	CL-SANDY CLAYS, fine grained, trace coarse grained, poorly graded, low plasticity, soft, brown, moist to very moist - decrease in sands, trace coarse grained and fine gravels, stiff, moist at 2.0ft BGS - increase in sands, soft at 3.0ft BGS	1.00
	SP-SANDS, fine to medium grained, poorly graded, loose, brown, moist - medium grained, with fine and coarse grained and fine to coarse gravels, moderately graded, gray, saturated, slight petroleum-like odor, sheen at 6.5ft BGS	5.50 8.20
	CL-CLAYS, with sands, fine grained, trace coarse grained and fine gravels, poorly graded, low plasticity, firm, gray, moist - trace fine to coarse gravels at 11.0ft BGS - trace fine sands at 12.5ft BGS	
	SP-SANDS, fine grained with fine gravels, poorly graded, compact, gray, moist	14.50 15.00
	CH-CLAYS, trace fine sands and fine to coarse gravels, poorly graded, high plasticity, firm, gray, moist	
	END OF BOREHOLE @ 30.0ft BGS NOTE: 6-8' INTERVAL TESTED POSITIVE USING SUDAN IV JAR TEST	30.00



WELL DETAILS
Screened interval:
4.00 to 19.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Sand Pack:
2.00 to 30.00ft BGS
Material: SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
0-2' -001				0.3
1HSA		50		0.8
				1.2
6-8' -002				29.6
2HSA		85		3.7
				1.4
3HSA		90		1.4
				1.6
4HSA		75		1.0
				1.0
				1.2
5HSA		80		1.2
				0.9
6HSA		85		0.6
				0.2

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

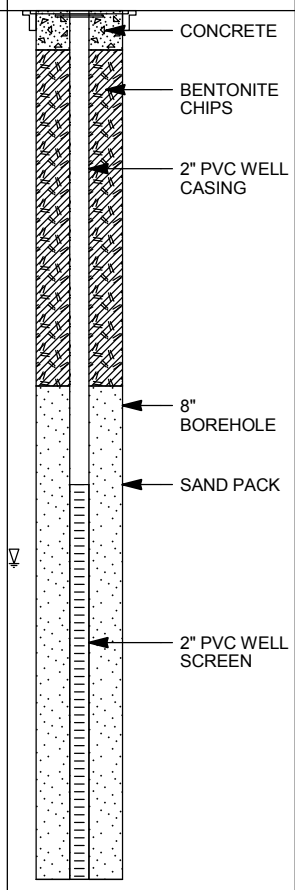
CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-05
DATE COMPLETED: July 24, 2009
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	CONCRETE	1.00
2, 4	SP-SANDS, fine grained, trace coarse grained and fine to coarse gravels, poorly graded, loose, brown, moist	
	GP-GRAVELS, coarse grained, with fine grained and fine sands, poorly graded, loose, gray, moist	5.00 / 5.50
6, 8	CL-CLAYS, trace fine sands and fine gravels, poorly graded, low plasticity, firm, brown, moist	
10, 12, 14	- no gravels, slight increase in plasticity, firm to soft, grayish brown, moist to very moist at 10.0ft BGS	
16, 18, 20, 22	- decrease in plasticity, firm, gray, moist at 18.5ft BGS	
	SP-SANDS, fine grained, with medium grained, poorly graded, loose, gray, saturated	22.50 / 23.25
24	CL-CLAYS, trace fine sands, poorly graded, low plasticity, firm to stiff, gray, moist	25.00
26, 28, 30, 32, 34	END OF BOREHOLE @ 25.0ft BGS NOTE: WATER TABLE OBSERVED AT ~ 14' BGS IN TEMP WELL	



WELL DETAILS
Screened interval:
12.00 to 22.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Seal:
1.00 to 9.50ft BGS
Material: BENTONITE CHIPS
Sand Pack:
9.50 to 22.00ft BGS
Material: SAND PACK

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1GP		70		1.2, 0.9
2GP		65		2.1, 2.1
3GP		80		2.4, 2.0
4GP		90		0.2, 1.1
5GP		75		0.0, 0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-06
DATE COMPLETED: July 20, 2009
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	ASPHALT	0.40	CONCRETE; BENTONITE CHIPS; 2" PVC WELL CASING					
2	SP-GRAVELLY SANDS, fine grained sand, fine to coarse gravels, poorly graded, loose, brown, moist			1GP		80		0.0
4	- with clays, loose to compact at 3.5ft BGS		8" BOREHOLE					0.0
	SP-SANDS, fine grained, trace medium grained and fine to coarse gravels, poorly graded, loose, brown, moist	4.75						
6								0.0
			2" PVC WELL SCREEN	2GP		35		
8								0.0
			SAND PACK					
10	- saturated at 9.9ft BGS							
12								0.0
				3GP		55		
14								0.0
	CI-CLAYS, with gravels, fine to coarse gravels, trace fine sands, poorly graded, moderate plasticity, firm, gray, moist	15.00						
16								0.0
18				4GP		100		
								0.0
20								
22								0.0
				5GP		95		
24								0.0
	END OF BOREHOLE @ 25.0ft BGS	25.00						
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
5.00 to 15.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Seal:
1.00 to 2.50ft BGS
Material: BENTONITE CHIPS
Sand Pack:
2.50 to 15.00ft BGS
Material: SAND PACK

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-07
DATE COMPLETED: July 21, 2009
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE	0.80	CONCRETE					0.0
2	CL-SANDY CLAYS, fine grained, trace medium grained and fine gravels, poorly graded, low plasticity, stiff, brown, moist	2.50	BENTONITE CHIPS	1GP		100		
4	SP-SANDS, fine grained, with medium to coarse grained and fine gravels, poorly graded, loose to compact, brown, moist - compact at 5.0ft BGS		2" PVC WELL CASING					0.0
6								0.0
8	- dense at 8.0ft BGS		8" BOREHOLE	2GP		65		0.0
10		10.50	2" PVC WELL SCREEN					0.0
12	CL-SANDY CLAYS, fine grained, trace medium grained and fine gravels, poorly graded, low plasticity, firm, brown, moist to very moist	12.50	SAND PACK	3GP		60		
14	SP-SANDS, fine grained, with medium to coarse grained and fine gravels, poorly graded, compact, brown, moist to very moist	13.50 14.00						0.0
16	CL-SANDY CLAYS, fine grained, poorly graded, low plasticity, firm, gray, moist to very moist	14.75						0.0
18	SP-SANDS, fine grained, with medium to coarse grained and fine gravels, poorly graded, compact, brown, moist to very moist			4GP		95		0.0
20	CI-CLAYS, trace fine to coarse sands and fine gravels, poorly graded, moderate plasticity, soft to firm, gray, moist to very moist							0.0
22				5GP		90		0.0
24								0.0
26	END OF BOREHOLE @ 25.0ft BGS NOTE: WELL SCREEN SET TO CAPTURE MOIST TO VERY MOIST SAND INTERVALS	25.00						
28								
30								
32								
34								

WELL DETAILS
Screened interval:
9.00 to 19.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Seal:
1.00 to 6.50ft BGS
Material: BENTONITE CHIPS
Sand Pack:
6.50 to 19.00ft BGS
Material: SAND PACK

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

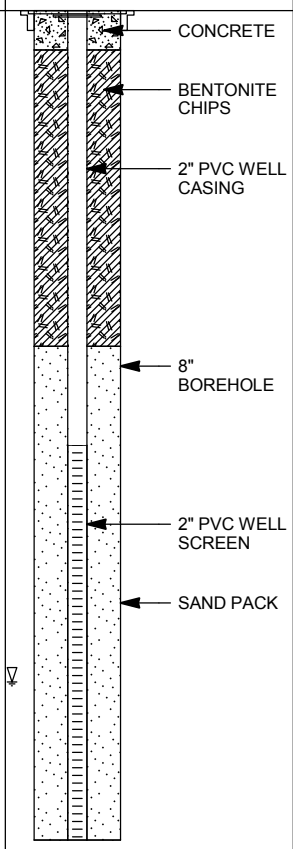
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: DUCO STORES
PROJECT NUMBER: 7097-10
CLIENT: ENCORE
LOCATION: PONTIAC, MI

HOLE DESIGNATION: MW34-08
DATE COMPLETED: July 24, 2009
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: C. BONDY

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	CONCRETE	0.40
2	CL-CLAYS, with gravels, fine to coarse grained, trace fine to medium sands, poorly graded, low plasticity, firm, brown, moist	
4		
	- trace fine to coarse gravels and fine sands, stiff, slightly mottled at 5.0ft BGS	
6		
8		
	- 2" sand lens at 9.3ft BGS	9.40
10	CL-SANDY CLAYS, fine grained, trace coarse gravels and silts, poorly graded, low plasticity, firm, brown, moist	10.50
		11.00
12	SP-SANDS, fine grained, trace medium grained, poorly graded, loose, brown, moist	
14	CL-SANDY CLAYS, fine grained, trace coarse gravels and silts, trace sand lenses, poorly graded, low plasticity, firm, brown, moist - no sand lenses, gray at 15.0ft BGS	
16		
18		
20		
22	- increase in sands, soft to firm, very moist at 21.0ft BGS - decrease in sands, firm, moist to very moist at 21.8ft BGS	
24	- stiff at 23.5ft BGS	
		25.00
26	END OF BOREHOLE @ 25.0ft BGS NOTE: WATER TABLE OBSERVED AT ~ 17' BGS IN TEMP WELL	
28		
30		
32		
34		

MONITORING WELL



WELL DETAILS
Screened interval:
11.00 to 21.00ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 0.010
Material: PVC
Seal:
1.00 to 8.50ft BGS
Material: BENTONITE CHIPS
Sand Pack:
8.50 to 21.00ft BGS
Material: SAND PACK

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
				3.3
1GP		75		
				3.9
				3.9
2GP		85		
				4.1
				4.0
3GP		70		
				3.4
				2.6
4GP		90		
				2.7
				1.0
5GP		80		
				1.2

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇