

Periodic Review Report: August 6, 2015 to August 6, 2016 NYSDEC BCP Site No. C828134

Location:

Former Steve Joy's Sunoco
3865 & 3875 West Henrietta Road
Town of Henrietta, New York

Prepared for:

RJ Dorschel Corporation
3817 West Henrietta Road
Rochester, New York 14623

LaBella Project No. 209395

August 2016

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Table of Contents

	Page
1.0 INTRODUCTION.....	1
1.1 Environmental History.....	1
2.0 PURPOSE AND SCOPE OF WORK.....	3
3.0 ANNUAL MONITORING.....	3
3.1 Groundwater Monitoring.....	4
3.2 Sub-Slab Depressurization System Monitoring.....	5
3.3 Deviations from SMP.....	6
4.0 GROUNDWATER FLOW CONTOURS.....	7
5.0 SUMMARY OF GROUNDWATER MONITORING.....	7
6.0 SITE EVALUATION.....	7
7.0 INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION.....	8

FIGURES

Figure 1	Site Location Map
Figure 2	Site Plan and Surrounding Properties
Figure 3	Groundwater Monitoring Well Locations and Location of Sub-Slab Depressurization Fan
Figure 4A	October 2011 Groundwater Contours
Figure 4B	July 2012 Groundwater Contours

TABLES

Table 1	Groundwater Monitoring Results - VOCs
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APPENDICES

Appendix A	Groundwater Sampling Logs
Appendix B	Data Usability Summary Reports (DUSRs)
Appendix C	October 6, 2015 Site Inspection Forms and Photographs
Appendix D	July 7, 2016 Site Inspection Forms and Photographs
Appendix E	As-Built Drawings of SSDS at 3865 & 3875 West Henrietta Road Buildings
Appendix F	Graphs of Total VOCs Over Time
Appendix G	Institutional Controls/Engineering Controls Certification Form

1.0 INTRODUCTION

LaBella Associates, D.P.C. (LaBella) is pleased to submit this Periodic Review Report (PRR) for the Former Steve Joy's Sunoco property located at 3865 and 3875 West Henrietta Road (NYS Route 15) (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) Site #C828134 administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #B8-0719-06-06, Site # C828134. A Site Location Map is included as Figure 1.

The Site is located in the Town of Henrietta, County of Monroe, New York and is comprised of the following two (2) parcels of land:

- 3865 West Henrietta Road, an approximate 1-acre parcel identified as Block 161.15-1 and Lot 20.1; and
- 3875 West Henrietta Road, an approximate 1.5-acre parcel identified as Block 161.19-1 and Lot 9.

The Site is improved with the following structures:

- A 4,692[±] square foot building on the 3865 West Henrietta Road parcel; and
- A 12,468 [±] square foot building on the 3875 West Henrietta Road parcel.

The properties surrounding the Site are commercial properties. The properties directly adjacent to the Site and their current occupants are as follows:

- North – 3861 West Henrietta Road, Pizza Hut Restaurant;
- East – West Henrietta Road Right-of-way (ROW), then 3870 West Henrietta Road, Lewis General Tire, Inc.;
- South – 3883 West Henrietta Road, an auto dealership; and
- West – overflow parking lots associated with the 3883 West Henrietta Road property.

A Site Plan (included as Figure 2), illustrates the Site boundaries and the adjacent properties.

1.1 Environmental History

Previous environmental investigations (Pre-BCP work) at the Site identified the nature and extent of contamination to be limited to petroleum contamination in soil, groundwater, and soil vapor. The apparent source of the petroleum impacts was from six petroleum underground storage tanks (USTs) and five hydraulic lifts.

The Pre-BCP and BCP Investigation work included advancing 73 soil borings, excavating nine test pits, installing 16 groundwater monitoring wells at the Site; installation of sub-slab soil vapor sampling points; and, sampling sub-slab, soil vapor and indoor/outdoor air. Based on the work completed, it was determined that the predominant contaminants were petroleum-related volatile organic compounds (VOCs) in soil and groundwater.

Petroleum-related semi-volatile organic compounds (SVOCs), chlorinated solvents, and metals were also detected in groundwater along with a limited area of metals in surface soils. Based on these findings, the following specific areas of contamination were identified:

- Petroleum impacted soil and groundwater between the 3865 Parcel Building and West Henrietta Road in the area of the former pump islands was identified at concentrations above the NYSDEC Part 375-6 Restricted Commercial Use Soil Cleanup Objectives and the NYSDEC Part 703 Groundwater Standards;
- Petroleum impacted soil directly north of the central portion of the 3875 Building associated with a UST was identified in the field as impacted;
- Petroleum impacts in soil around hydraulic lifts within the western portion of the 3875 Building was identified in field observations;
- An area of surface soils along West Henrietta Road impacted with the metals (arsenic and barium) was identified at concentrations above the NYSDEC Part 375-6 Restricted Commercial Use Soil Cleanup Objectives;
- Concentrations of VOCs in the sub-slab soil vapor and indoor air at both buildings at the Site were identified; and
- VOCs and metals in groundwater on the 3875 Parcel were identified at concentrations above the NYSDEC Part 703 Groundwater Standards.

The Remedial Measures completed at the Site have included two (2) Interim Remedial Measures (IRMs) consisting of the removal of USTs and soil. The soil removed during the IRM was transported to an off-site location for treatment in a bio-cell. In addition, a final remedy at the Site consisted of the removing hydraulic lifts, soil and groundwater. The remedies and Areas of Concern (AOC) designation from the Remedial Action Work Plan (RAWP) are summarized below:

- Removal and bioremediation of approximately 1,740 cubic yards of petroleum-impacted soils from AOC #1. This resulted in removing all soils above the NYSDEC Part 375-6.8(b) Protection of Groundwater SCOs with the exception of two areas due to underground utilities, the West Henrietta Road ROW and the on-site building.
- Removal and disposal of six underground storage tanks and their contents, which consisted of approximately 8,000 gallons of petroleum impacted waters and 600 gallons of waste oil.
- Removal and disposal of five hydraulic lifts (AOC #2) and removal and off-site disposal of approximately 85 tons of petroleum impacted soil from seven hydraulic lift locations (i.e., 2 former locations and the 5 lifts removed as part of this project).
- Removal and disposal of a 5-ft. by 5-ft. area to 1-ft. in depth of surface soils impacted with heavy metals. The heavy metals were identified during the RI in surface soil sample SS-1 located along the eastern edge of the 3865 West Henrietta property boundary and was identified as AOC #5.
- Installation of a sub-slab depressurization system (SSDS) to mitigate the potential for vapor intrusion within (AOC #3) the existing building at the 3865 West Henrietta Road parcel. Pressure field extension testing was completed on each of the monitoring points after the installation of the SSDS, and confirmed the system influences the entire slab area. An SSDS was also installed at the 3875 Parcel building during redevelopment of the Mini Cooper dealership in 2012.

- An Environmental Easement was executed and recorded to restrict land use and prevent future exposure to any contamination remaining at the Site.
- Development and implementation of a Site Management Plan (SMP) for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of this report is to present the monitoring work completed at the Site during the time period of August 6, 2015 to August 6, 2016. This work was completed in general accordance with the provisions identified in the SMP. As required in the SMP, this report includes the following information:

- Identification, assessment and certification of all Engineering Controls/Institutional Controls (ECs/ICs) required by the remedy for the Site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format (included in report);
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media, which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A Site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the Site-specific RAWP;
 - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
 - The overall performance and effectiveness of the remedy.

3.0 ANNUAL MONITORING

The original SMP identified the ongoing monitoring of the performance of the remedy, via semi-annual sampling of two (2) existing groundwater monitoring wells (3865 Parcel: MW-7 and 3875 Parcel: MW-3R). The original SMP indicated that monitoring the overall reduction in contamination on-site would be conducted for the first two (2) years, with the frequency thereafter to be determined by NYSDEC. The NYSDEC approved annual monitoring of the two (2) wells for VOCs only in a letter dated July 22, 2013. Trends in contaminant levels in groundwater in the affected areas will be evaluated to determine if the remedy continues to be effective in achieving remedial goals.

The original SMP also required a semi-annual inspection of the SSDS and semi-annual monitoring of the biocell soils. In their July 22, 2013 letter, the NYSDEC also approved discontinuing monitoring of the biocell soils.

The current monitoring program is summarized in the following table and was included in the June 2014 SMP update.

Schedule of Monitoring/Inspections

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater Monitoring	Annual	Groundwater	1) VOCs using USEPA Method 8260 (NYSDEC STARS-list for 3865 parcel wells and TCL VOCs for 3875 parcel wells)
Sub-Slab Depressurization System Inspection	Annual	Sub-Slab Vapor	None

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.1 Groundwater Monitoring

Groundwater monitoring was conducted in October 2015 and June 2016. Monitoring wells MW-7 and MW-3R (Replacement Well) were both sampled on October 6, 2015 and June 14-15, 2016. The locations of these wells are shown on Figure 3.

Static water levels (SWLs) were collected during the sampling events. The groundwater samples were collected using a modified low-flow sampling procedure with a peristaltic pump. During the sampling events, disposable tubing was utilized between wells, and, as such, decontamination of equipment was not required.

During the sampling events, field measurements of water quality parameters were collected using a Horiba U-52-2 water quality meter equipped with an in-line flow cell. During the sampling events, the following field measurements were collected:

- pH
- Conductivity
- Temperature
- Oxygen Reduction Potential (ORP)
- Turbidity
- Dissolved Oxygen (DO)

During the sampling events, water quality parameter readings were recorded at regular time intervals prior to the collection of groundwater samples. Water quality stabilization criteria are summarized in the following table.

Measurement	Maximum Variability for 3 Consecutive Readings
pH	+/- 0.1 standard units
Conductivity	+/- 3 %
Oxidation Reduction Potential	+/- 10 mV
Turbidity	+/- 10 %
Dissolved Oxygen	+/- 10 %

During the sampling events, the required criteria were met prior to sample collection at MW-3R. In addition, the SWL in MW-3R was monitored during the sampling events to confirm that drawdown in the well was minimized.

Due to very limited water volume in MW-7, on October 6, 2015 the groundwater sample was collected from this well was collected prior to the well going dry. On June 14, 2016, MW-7 was purged dry quickly, and the well was allowed to recharge overnight. A groundwater sample was collected from MW-7 on the morning of June 15, 2016

Groundwater sampling logs that include the in-field parameter measurements are included in Appendix A.

Environmental Science Corporation of Mt. Juliet, Tennessee (ESC) analyzed the groundwater samples collected during the groundwater monitoring events. ESC is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. The samples were analyzed for NYSDEC CP-51-list and United States Environmental Protection Agency (USEPA) Target Compound List (TCL) VOCs using USEPA Method 8260.

All laboratory data from the groundwater monitoring events were reported in an Analytical Services Protocol (ASP) Category B Deliverables and Data Usability Summary Reports (DUSRs) were prepared for the data. Copies of the DUSRs are included in Appendix B. As previously requested by the NYSDEC, the ASP Category B laboratory analytical reports will be provided separately.

3.2 Sub-Slab Depressurization System (SSDS) Monitoring

This section discusses the SSDS monitoring performed on October 6, 2015 and July 7, 2016 in the two (2) on-site buildings.

3865 West Henrietta Road Building

The SSDS in the 3865 West Henrietta Road building was monitored on October 6, 2015 and July 7, 2016 in order to verify proper operation of the system. Because the manometer installed on this SSDS is now located within the wall of the women's restroom and is accessible via a removable wall panel, NYSDEC requested in October 2015 that an alarm be installed on the SSDS. The purpose of the alarm is to monitor proper operation of the SSDS; this alarm was installed in late 2015.

The location of the SSDS venting point/fan that operates the SSDS for the 3865 Building is shown on

Figure 3, and an as-built drawing of the SSDS is included in Appendix E. At the fan location, the following inspections were made:

- the in-line U-tube manometer on the suction side of the piping system was observed to determine a pressure differential of approximately 2.5 inches of water column which is consistent with historic readings and indicates the SSDS is operating properly;
- the condition of the piping was observed to determine if any portion of the piping required repair;
- the fan was working properly; and
- labeling of the system was intact.

Based upon the inspections, the SSDS appeared to be in good working order (i.e., the manometer indicated the SSDS was working, the fan was observed to be working, and the piping appeared in good condition). Copies of the inspection forms and photographs from the inspections are included in Appendices C and D.

3875 West Henrietta Road Building

The SSDS in the 3875 West Henrietta Road building was monitored on October 6, 2015 and July 7, 2016 in order to verify proper operation of the system. The SSDS for the 3875 Building is shown in the as-built drawings included as Appendix E. At the fan location, the following inspections were made:

- the sub-slab monitoring points were measured with a digital micro-manometer to determine a pressure differential between the sub-slab and indoor air. The results of this monitoring are summarized in the following table;

Location	October 6, 2015 Monitoring Event		July 7, 2016 Monitoring Event	
	Valve 1 Measurement	Valve 2 Measurement	Valve 1 Measurement	Valve 2 Measurement
Northern Point	- 0.760	- 0.443	- 0.593	- 0.198
Southern Point	- 0.304	- 0.255	- 0.237	- 0.187

- the condition of the piping was observed to determine if any portion of the piping required repair;
- the fan was working properly; and
- labeling of the system was intact.

Based upon the inspections, the SSDS appeared to be in good working order (i.e., the micro-manometer readings indicated the SSDS was working, the fan was observed to be working, and the piping appeared in good condition). Copies of the inspection forms are included in Appendices C and D.

3.3 Deviations from SMP

No deviations were encountered during this monitoring period.

4.0 GROUNDWATER FLOW CONTOURS

Although static water level measurements were collected during the October 2015 and June 2016 groundwater monitoring events, these sampling events included only two (2) monitoring wells. Historic monitoring information previously presented to the NYSDEC describes the groundwater flow regime at the Site. For informational purposes, groundwater contour maps from October 2011 and July 2012 are included as Figures 4A and 4B.

5.0 SUMMARY OF GROUNDWATER MONITORING

Groundwater monitoring events were performed in October 2015 and June 2016, and included two (2) existing groundwater monitoring wells (3865 Parcel: MW-7 and 3875 Parcel: MW-3R) at the locations shown on Figure 3.

The results of the groundwater monitoring are summarized in Table 1 (VOCs) and are compared to the NYSDEC Part 703 groundwater standards. As summarized in the attached Table 1 and the following table, VOCs were reported above NYSDEC Part 703 groundwater standards in the groundwater samples collected during the groundwater monitoring events.

Well ID	Site Parcel	VOC(s) above Part 703 Groundwater Standards	
		October 2015 Sampling Event	June 2016 Sampling Event
MW-7	3865 Parcel	Benzene; Ethylbenzene; sec-butylbenzene; n-Propylbenzene; Isopropylbenzene; p-isopropyltoluene; n-Butylbenzene; Naphthalene; Toluene; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; Xylenes; Chlorobenzene; Cyclohexane; and Methylcyclohexane	Benzene; Ethylbenzene; sec-butylbenzene; n-Propylbenzene; Isopropylbenzene; p-isopropyltoluene; n-Butylbenzene; Naphthalene; Toluene; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; Xylenes; Chlorobenzene; Cyclohexane; and Methylcyclohexane
MW-3R	3875 Parcel	Chlorobenzene	Chlorobenzene

6.0 SITE EVALUATION

The annual monitoring work conducted from August 6, 2015 to August 6, 2016 was completed in accordance with the SMP, with any exceptions noted in Section 3.3.

Groundwater Monitoring

Most of the previously existing groundwater monitoring wells at the Site have been destroyed or paved over during the redevelopment activities at the Site.

The analytical results from the October 2015 and June 2016 groundwater sampling events indicate that VOC concentrations appear stable and may be decreasing slightly in MW-7 and MW-3R, as

shown in the graphs included in Appendix F. In addition, with regard to MW-3R, the reported VOC concentrations are relatively low-level, and only Chlorobenzene exceeds its associated Part 703 Groundwater Standard.

Based on the above, no changes to the current monitoring program are proposed.

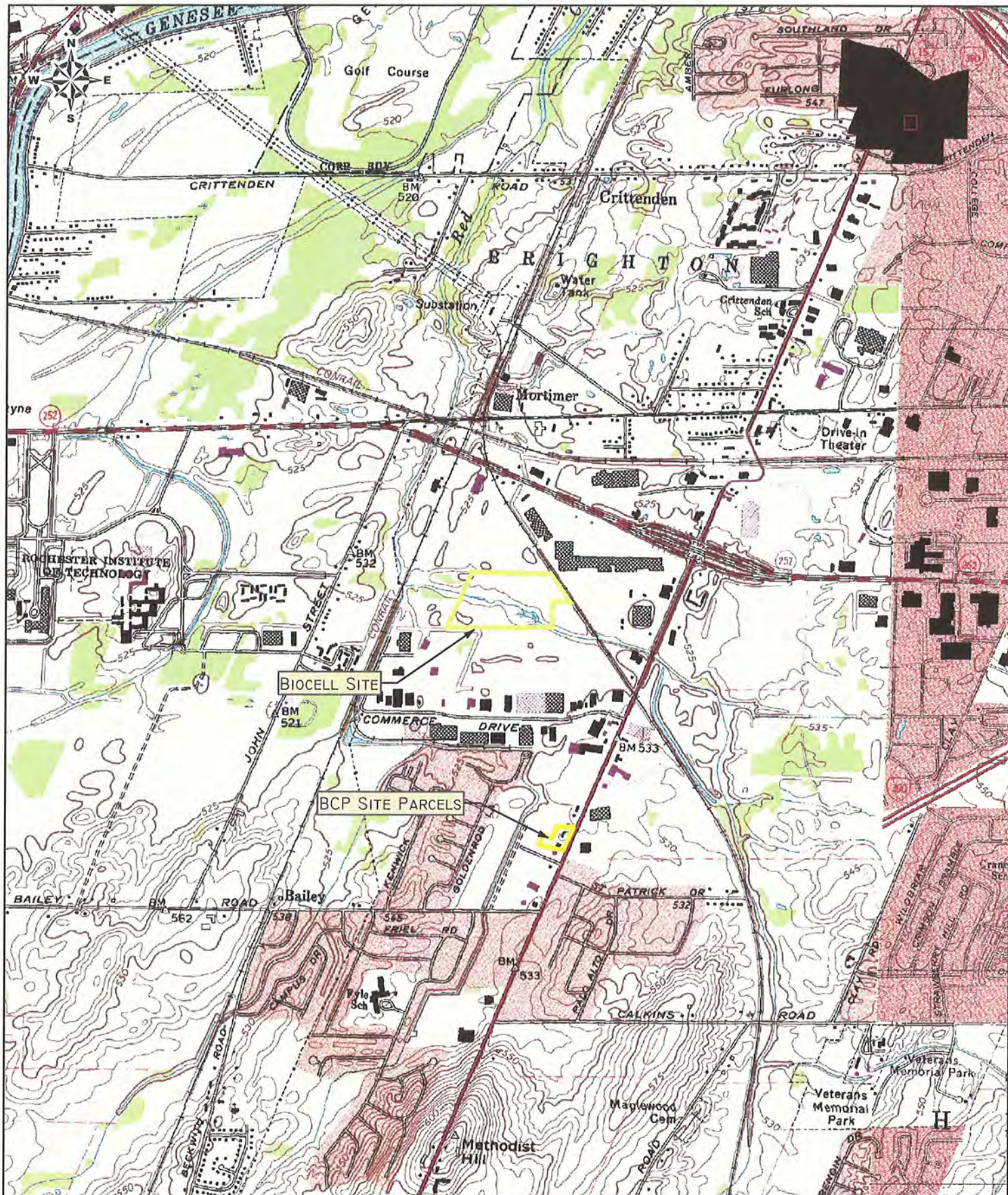
The remedial program outlined in the SMP has effectively achieved progress toward meeting the remedial objectives for the Site. Continued monitoring of the SSDS and the implementation of the SMP should ultimately achieve the remedial objectives for the Site. The next groundwater sampling event is scheduled for Spring 2017.

7.0 INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION

The completed NYSDEC Institutional and Engineering Controls Certification Form is included in Appendix G.

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FIGURES



PROJECT DRAWING NUMBER

[209395]
[FIGURE 1]

SITE LOCATION MAP

1:24,000

DESIGNED FOR	DESIGNED BY	RCN
REVIEW	DRAWN BY	RCN
DATE: 8/28/09	FIELD SURVEY	DPN

SITE MANAGEMENT PLAN

BCP SITE #C8281324
3865 & 3875 WEST HENRIETTA RD
ROCHESTER, NY 14623

LABELLA
Associates, P.C.

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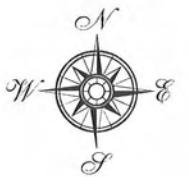
Y:\R\J Dorschel Corp\209395\Drawings\PRR 2011\Fig2 Site Area Map.mxd



**Periodic Review Report
NYSDEC BCP Site #C8281324
3865 & 3875 West Henrietta Rd
Henrietta, New York**

R.J. Dorschel Corporation

**Site Plan and Surrounding
Properties**



[209395]

[FIGURE 2]

Legend

- Soil Borings Advanced by Environmental Assessment & Remediation in 1997
- Test Borings Advanced by LaBella Associates in 2005 on 3865 Parcel
- Monitoring Well Installed by LaBella Associates in 2005 on 3865 Parcel
- Test Boring Advanced by LaBella Associates in 2005 at 3875 Parcel
- ⊕ Monitoring Well Installed by LaBella Associates in 2005 at 3875 Parcel
- ⊕ Monitoring Well - RI
- Test Boring - RI
- Soil Gas Sample - RI
- △ Sub-Slab Soil Vapor/Indoor Air Sample
- Surface Soil Sample - RI
- △ Ambient Air Sample Collected as part of BCP RI in August 2006
- Test Pit
- ⊕ Monitoring Well Installed as part of BCP RI in August 2006
- Test Boring Advanced as part of BCP RI in August 2006
- Soil Gas Sample Collected as part of BCP RI in August 2006
- △ Sub-Slab Soil Vapor Sample Collected as part of BCP RI in August 2006
- ▲ Indoor Air Sample Collected as part of BCP RI in August 2006
- Surface Soil Sample Collected as part of BCP RI in August 2006
- Building Walls
- Existing Site Feature
- - - Former/Removed Site Feature
- Building Walls
- Existing Features
- - - Former Features
- ▨ Leachfield
- Parcel_Boundary
- BCP Site Boundary

REPLACEMENT WELL



Periodic Review Report
NYSDEC BCP Site #C8281324
3865 & 3875 West Henrietta Rd
Henrietta, New York

R.J. Dorschel Corporation

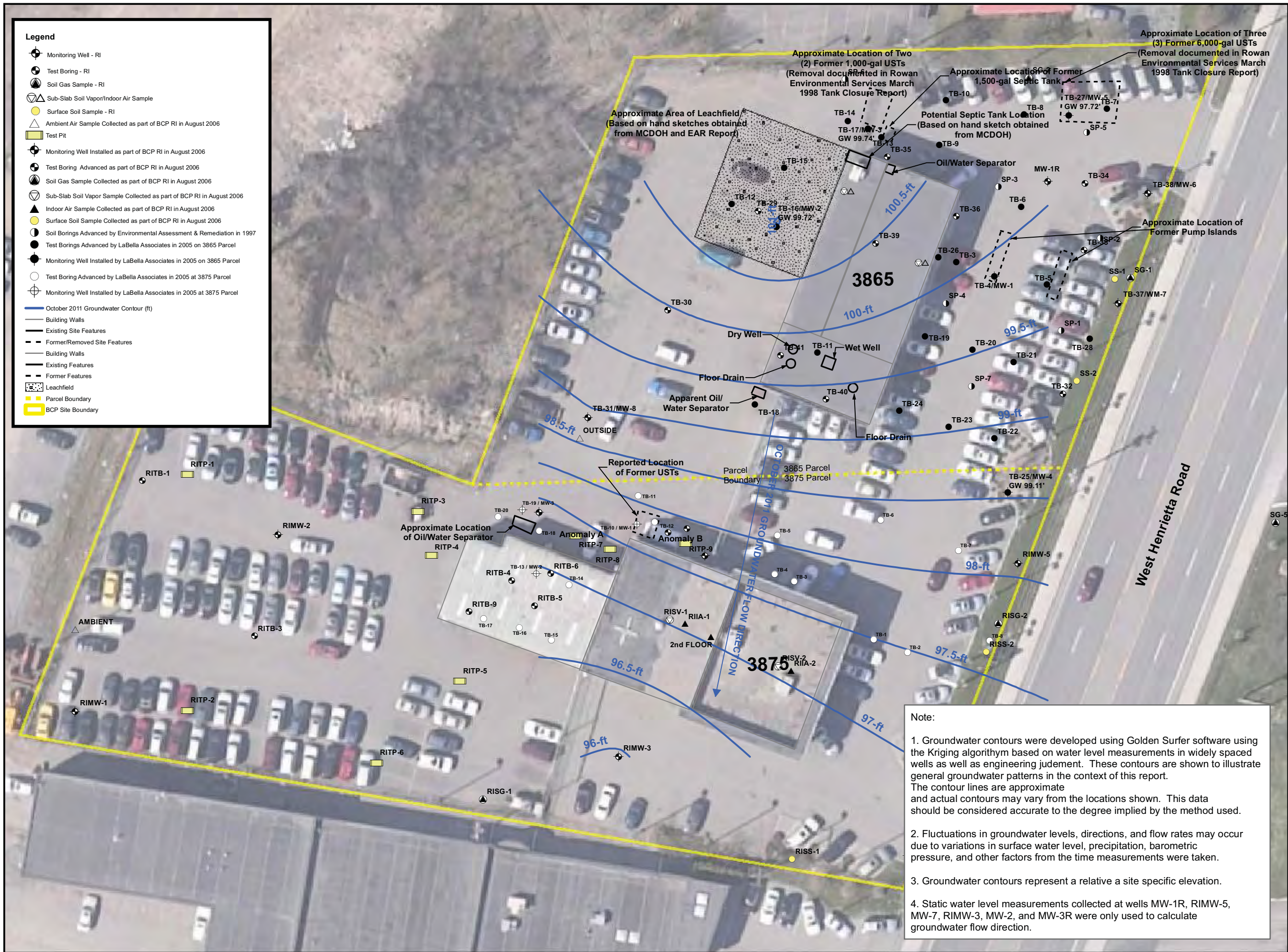
Groundwater Monitoring Well
Locations and Location
of Sub-Slab
Depressurization Fan



0 10 20 40
1 inch = 40 feet

[209395]

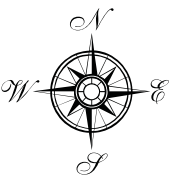
[FIGURE 3]



**Periodic Review Report
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Henrietta, New York**

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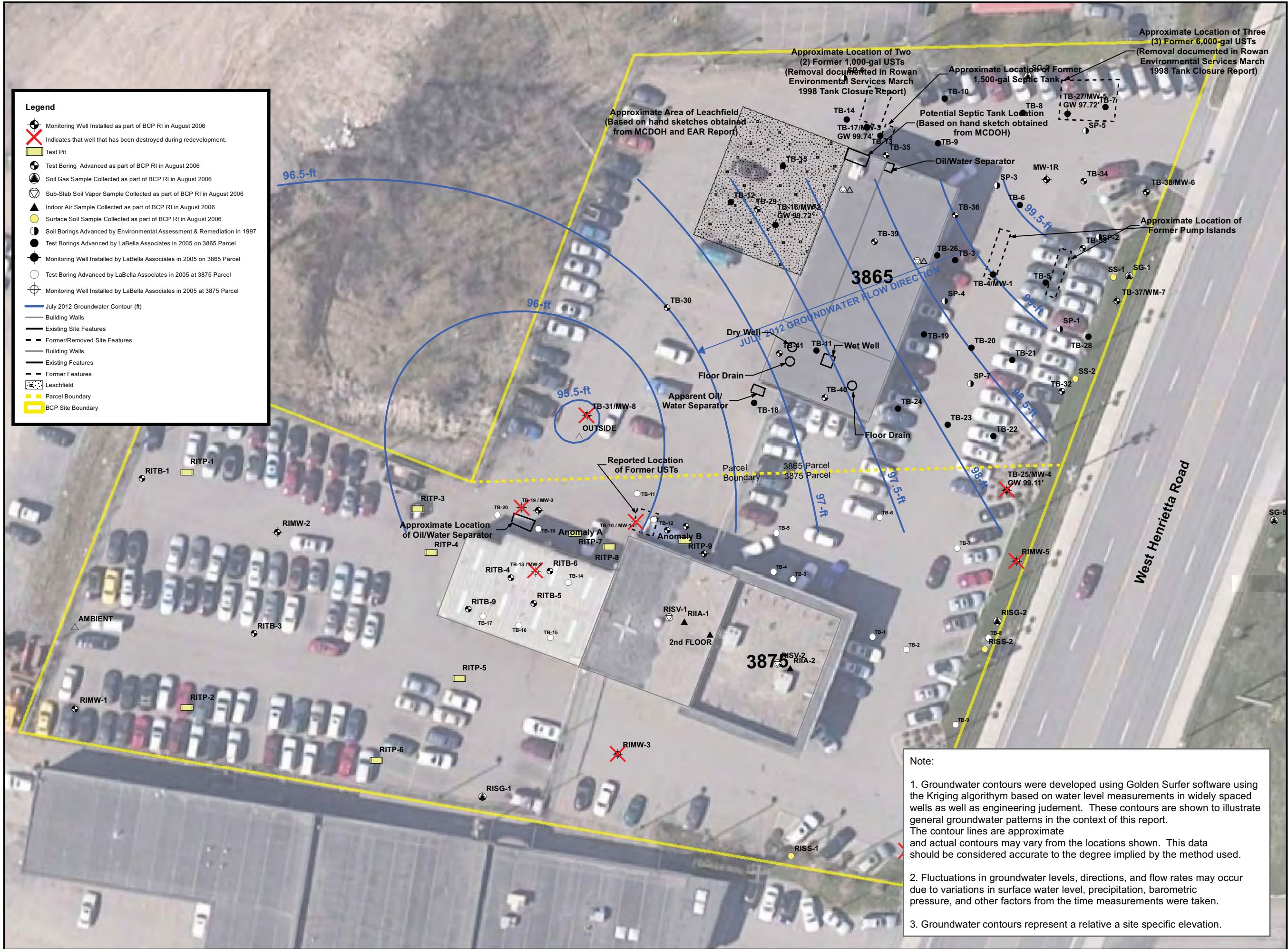
**October 2011
Groundwater Contours
and Site Location Plan**



0 510 20
1 inch = 40 feet

209395
FIGURE 4A

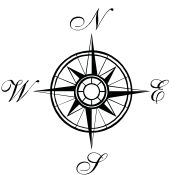
Y:\RJ Dorschel Corp\209395\Drawings\PRR 2011\Fig5B Groundwater Contour Oct 2010.mxd



**Periodic Review Report
NYSDEC BCP Site #C8281324
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Henrietta, New York**

R.J. Dorschel Corporation

**July 2012
Groundwater Contours
and Site Location Plan**



0 510 20
1 inch = 40 feet

TABLE 1

Groundwater Monitoring Results - VOCs

Table 1

Groundwater Monitoring
3865 & 3875 West Henrietta Road, Henrietta, New York
NYSDEC Brownfield Cleanup Program ID No. C828134

Summary of Detected Volatile Organic Compounds (VOCs) in Groundwater
Test Results in Micrograms per Liter (µg/L) or Parts Per Billion (PPB)

Constituent	3865 Parcel											3875 Parcel										NYSDEC Part 703: Groundwater Standard
	MW-7											MW-3R										
	September 2006	May 2007	June 2010	October 2010	May 2011	October 2011	July 2012	March 2014	May 2015	October 2015	June 2016	May 2007	June 2010	October 2010	May 2011	October 2011	April 2014	May 2015	October 2015	June 2016		
Petroleum-Related Volatile Organic Compounds																						
Benzene	370	410	740 E	750 D	ND<5.0	730	870	1,150	1,200	816	848	ND<5.0	2.3 J	2.8 J	3.1 J	31.7	ND<0.7	ND<50	ND<1.00	ND<1.00	1	
Ethyl ether	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND<1.0	---	ND<1.0	---	---	Not Available	
Ethylbenzene	880	790 E	250 E	620 D	ND<5.0	266	610	1050	950	786	258	ND<5.0	ND<5.0	ND<5.0	ND<5.0	5.2	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
sec-Butylbenzene	ND <50	23	3 J	5.6	ND<5.0	ND<100	11	ND<40.0	7.7	7.89	6.29	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
n-Propylbenzene	ND <50	260 E	13	36	ND<5.0	ND<100	86	108	110	89.1	18.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
Isopropylbenzene	78	91	13	33	ND<5.0	ND<100	44	49.9	49	43.0	21.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
p-Isopropyltoluene	ND <50	22	ND<5.0	---	ND<5.0	ND<100	ND<5.0	ND<40.0	7.1	7.27	6.71	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
n-Butylbenzene	---	---	---	---	---	ND<100	32	28.8 J	12	11.0	4.16	---	---	---	---	---	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
Naphthalene	ND <50	1,100 E	240 BE	330 DJ	ND<5.0	419	480	478	600	423	620	ND<5.0	1.4 BJ	ND<5.0	ND<5.0	ND<1.0	ND<5.0	ND<5.00	ND<5.00	10		
Toluene	980 D	690 E	260 E	180	ND<5.0	106	35	156	120	73.9	71.9	ND<5.0	ND<5.0	ND<5.0	ND<5.0	1.7	ND<2.0	ND<5.0	ND<5.00	ND<5.00	5	
1,2,4-Trimethylbenzene	ND <50	1,100 E	620 E	730 D	ND<5.0	1,400	1,200	1,390	1,300	1,380	1540	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<2.0	1.3	ND<1.00	ND<1.00	5	
1,3,5-Trimethylbenzene	ND <50	630 E	210 E	190 DJ	ND<5.0	422	320	322	200	196	197	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
m,p-Xylene	ND <50	2,100 E	2,300 E	4,700 D	ND<5.0	6,190	2,800	4,190	2,900	2,620	3,220	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2.2	ND<2.0	2.1	ND<2.00	ND<2.00	5	
o-Xylene	ND <50	760 E	450 E	690 D	ND<5.0	502	35	363	230	143	332	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3.9	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
Tert-amyl methyl ether	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.4	---	---	---	Not Available	
Tert-butanol / butyl alcohol	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12.8	---	---	---	---	Not Available	
Methyl-tert-Butyl Ether	ND <10	ND<5	2.4 J	2.4 J	5.6	ND<100	18	ND<40.0	ND<1.0	ND <1.0 U	ND<1.00	2 J	ND<5.0	ND<5.0	1.2 J	22.5	2.97	2.5	1.56	2.25 J	10	
Solvent-Related Volatile Organic Compounds																						
Acetone	40 J	ND<5	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	ND<200	140	ND <50.0	ND <50.0	ND<5.0	42	Not Tested	ND<5.0	ND<10.0	ND<10.0	ND<50	ND <50.0	ND <50.0	50	
2-Butanone	ND<50	ND<5						ND<200	ND<10	ND <10.0	ND <10.0	ND<5.0	8.1		ND<5.0	ND<10.0	ND<10.0	ND<10	ND <10.0	ND <10.0	50	
Cyclohexane	140	ND<5						190 J	100	113	82.3 R	ND<5.0	ND<5.0		ND<5.0	Not Tested	ND<10.0	ND<1.0	ND<1.00	ND<1.00 R	5	
Chlorobenzene	ND<50	ND<5						ND<40.0	ND<1.0	ND<1.00	ND<1.00	11 J	3.9 J		9.1	ND<1.0	67.3	120	106	103 J	5	
Dichlorodifluoromethane	---	---						ND<40.0	ND<5.0	ND<5.00	ND<5.00	---	---		---	ND<2.0	ND<2.0	ND<5.0	ND<5.00	ND<5.00	5	
1,2-Dichlorobenzene	ND<50	ND<5						ND<40.0	ND<1.0	ND<1.00	ND<1.00	ND<5.0	ND<5.0		ND<5.0	ND<10.0	1.4	2.7	2.42	2.41 J	5	
cis-1,2-Dichloroethene	ND<50	ND<5						ND<40.0	ND<1.0	ND<1.00	ND<1.00	1 J	ND<5.0		4.4 J	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
1,1-Dichloroethane	ND<50	ND<5						ND<40.0	ND<1.0	ND<1.00	ND<1.00	1 J	ND<5.0		ND<5.0	1.2	ND<2.0	1.2	ND<1.00	1.24 J	5	
Methylcyclohexane	59	ND<5						63.2	120	ND <20 U	37.6 R	ND<5.0	ND<5.0		ND<5.0	Not Tested	ND<2.0	ND<1.0	ND<1.00	ND<1.00 R	5	
Methylene Chloride	ND<36	ND<5						ND<100	ND<5.0	ND<5.00	ND<5.00	ND<5.0	ND<5.0		ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.00	ND<5.00	5	
trans-1,2-Dichloroethene	ND<50	ND<5						ND<40.0	ND<1.0	ND<1.00	ND<1.00	ND<5.0	ND<5.0		ND<5.0	ND<1.0	ND<2.0	ND<1.0	ND<1.00	ND<1.00	5	
Vinyl Chloride	ND<50	ND<5						ND<40.0	ND<1.0	ND<1.00	ND<1.00	3 J	ND<5.0		6.3	1.8	ND<2.0	ND<1.0	ND<1.00	ND<1.00	2	
Total VOCs	2,547	7,976	5,101	8,267 D,J	5.6	10,035	6,541	9,286	8,046	6,709	7,143.26	18	57.7	2.8 J	24.1 J	86.4	71.67	129.8	109.98	108.90	Not Available	
Total VOC TICs	9,980	5,795	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	ND	ND	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested		
Total VOCs and VOC TICs	12,527	13,771	5,101	8,267	5.6	10,035	6,541	9,286	8,046	6,709	7,143.26	18	57.7	2.8	24.1	86.4	71.7	129.8	109.98	108.9		

Notes:
VOC analysis by USEPA Method 8260B TCL.
Bold Type denotes that the detected value exceeds its associated NYSDEC Part 703 Groundwater Standard.
ND<5.0 denotes compound not detected above the method detection limits.
J denotes an estimated value; the analyte was positively identified, but the associated numerical value is the approximate concentration of the analyte in the sample
D denotes that the compound was identified in a secondary dilution performed on the sample.
E denotes that the concentration of the compound was found to exceed the calibration range for the instrument.
U is a data qualifier indicating that during data validation, it was determined that the concentration reported by the laboratory should be "interpreted as undetected."
R is a data qualifier indicating that during data validation, it was determined that the concentration reported by the laboratory should be "rejected".

APPENDIX A

Groundwater Sampling Logs



300 State Street
Rochester, New York 14614

Telephone: (585) 454-6110

Facsimile: (585) 454-3066

WELL I.D.: MW-3R

Project Name: Dorschel Annual Groundwater Monitoring

Location: 3865 & 3875 West Henrietta Road

Project No.: 209395

Sampled By: N. Inzinna

Date: 10/6/2015

Weather: 55 degrees F, Cloudy

WELL SAMPLING INFORMATION

Well Diameter: 2 inch

Depth of Well: 15.05 feet

Measuring Point: PVC

Pump Type: Geopump – Peristaltic

Static Water Level: 3.18 feet

Length of Well Screen: 5 feet

Depth to Top of Pump: N/A

Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (ml/min)	Gallons Purged	pH	Temp °C	Conductivity (µS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1							
1042	50% / 150	-	7.04	17.8	2.53	38.4	5.75	144.3	3.18	
1047	50% / 150	0.2	6.58	18.9	2.52	34.6	0.53	31.0	4.45	
1052	50% / 150	0.4	6.62	19.1	2.48	31.2	0.51	25.7	5.48	
1057	50% / 150	0.6	6.68	19.1	2.36	26.7	0.62	22.4	5.81	Sample collected @ 1101

Total 0.6 Gallons Purged

Purge Time Start: 1042

Purge Time End: 1057

Final Static Water Level: 5.81

OBSERVATIONS

Notes:

Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-7

Project Name: Dorschel Annual Groundwater Monitoring

Location: 3865 & 3875 West Henrietta Road

Project No.: 209395

Sampled By: N. Inzinna

Date: 10/6/2015

Weather: 60 degrees F, cloudy

WELL SAMPLING INFORMATION

Well Diameter: 1 inch

Depth of Well: 7.50 feet

Measuring Point: PVC

Pump Type:	Geopump - Peristaltic
------------	-----------------------

Static Water Level: 2.65 feet

Length of Well Screen: 5 feet

Depth to Top of Pump: N/A

Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

[illegible]

Total	0.1	Gallons Purged
-------	-----	----------------

Purge Time Start: 1210

Purge Time End: 1215

Final Static Water Level: 6.70

OBSERVATIONS

Notes: GW sample was collected due to well running dry.



300 State Street
Rochester, New York 14614

Telephone: (585) 454-6110

Facsimile: (585) 454-3066

WELL I.D.: MW-3R

Project Name: RJ Dorschel Groundwater Monitoring

Location: 3865 & 3875 West Henrietta Road

Project No.: 209395

Sampled By: K R Miller

Date: 6/14/2016

Weather: Sunny 70° F

WELL SAMPLING INFORMATION

Well Diameter: 2-inch

Depth of Well: 15 feet

Measuring Point: Top of Casing (TOC)

Pump Type: Geopump – Peristaltic

Static Water Level: 3.03 feet Below Top of Casing (BTOC)

Length of Well Screen: 5 feet

Depth to Top of Pump: Tubing inlet ±12.5 BTOC

Tubing Type: Poly

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (L/min)	Gallons Purged	pH	Temp °C	Conductivity (µS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water (ft. BTOC)	Comments
			+/- 0.1		+/- 3%		+ 10%	+/- 10 mV		
12:25	<0.2									Flow thru cell filling
12:30			7.39	17.22	2.28	59.8	0.35	-50	4.85	
12:35			7.38	17.28	2.24	36.2	1.62	-41	5.56	
12:40			7.42	17.18	2.23	38.3	3.55	-33	5.80	
12:45			7.39	17.36	2.19	37.4	4.16	-34	5.65	
12:50			7.32	17.58	2.18	20.0	4.30	-5	5.65	
12:55			7.33	17.52	2.19	22.2	4.26	-8	5.65	

Total 1.5 Gallons Purged

Purge Time Start: 12:22

Purge Time End: 12:55

Final Static Water Level: 5.65 feet BTOC

OBSERVATIONS

Light yellowish-brown color to purged groundwater.

No odor or sheen observed in connection with purged groundwater.

Groundwater sample collected 6/14/2016 at 13:00; two (2) 40-mL, HCl-preserved VOA containers filled and submitted for laboratory analysis.



300 State Street
Rochester, New York 14614

Telephone: (585) 454-6110

Facsimile: (585) 454-3066

WELL I.D.: MW-7

Project Name: RJ Dorschel Groundwater Monitoring

Location: 3865 & 3875 West Henrietta Road

Project No.: 209395

Sampled By: K R Miller

Date: 6/14/2016 & 6/15/2016

Weather: Sunny 70° F

WELL SAMPLING INFORMATION

Well Diameter: 1 inch

Depth of Well: 7.5 feet

Measuring Point: Top of Casing (TOC)

Pump Type: Geopump - Peristaltic

Static Water Level: 2.5 feet Below Top of Casing (BTOC)

Length of Well Screen: 5 feet

Depth to Top of Pump: Tubing inlet ±6.5 BTOC

Tubing Type: Poly

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (L/min)	Gallons Purged	pH	Temp °C	Conductivity (µS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water (ft. BTOC)	Comments
			+/- 0.1		+/- 3%		+ 10%	+/- 10 mV		
14:15	<0.2									Flow thru cell filling
14:18			7.51	17.84	1.66	95.0	2.05	-147		Cannot measure depth to water, well diameter is too small.
14:23			7.53	18.65	1.69	88.3	2.85	-136		

Total <0.5 Gallons Purged

Purge Time Start: 14:12

Purge Time End: 14:25

Final Static Water Level: N/A

OBSERVATIONS

Well purged "dry" on 6/14/2016, and was allowed to recharge overnight. Groundwater sample was collected on 6/15/2016 at 10:30; two (2) 40-mL, HCl-preserved VOA containers filled and submitted for laboratory analysis..

APPENDIX B

Data Usability Summary Reports (DUSRs)

DATA USABILITY SUMMARY REPORT

for

LABELLA ASSOCIATES, P.C.

300 State Street

Rochester, NY 14614

3865-3875 West Henrietta Road Site

Project 209395

Aqueous Samples

SDG: L793134

Sampled October 2015

VOLATILE ORGANICS

MW-1 (L809643-01)

ME-3R (L809643-02)

DATA ASSESSMENT

An ASP Category B data package containing analytical results for two groundwater samples was received from Labella Associates, P.C. on 25Jul16. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the 3865-3875 West Henrietta Road Site, were identified by Chain of Custody documents and traceable through the work of Environmental Science Corporation, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8260C, addressed determinations of volatile organics. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-33, Rev. #3, March 2013, Low/Medium Volatile Data Validation) was used as a technical reference.

The bromomethane and trichloroethene results from this group of samples have been qualified as estimations due to poor calibration performance.

The identifications of MTBE and methylcyclohexane in MW-7 could not be confirmed, based on the mass spectra references included in the raw data. MTBE and methylcyclohexane should be interpreted as undetected in the affected sample.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Results representing a usable estimation of the conditions at the time of sampling have been flagged "U" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature:


James B. Baldwin

Date: 28 July 16

Sample History

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the time of collection. Samples must remain chilled to 4°C between the time of collection and the time of analysis. Acid preserved VOC samples must be analyzed within 14 days of VTSR, unpreserved VOC samples within 7 days. The holding time for soils is 14 days. Semivolatile organics, pesticides and PCB samples must be extracted from aqueous samples within seven days of collection. The extracts must then be analyzed within forty days of extraction. The holding times for cyanide and mercury samples are 14 and 28 days, respectively. Metals samples must be analyzed within six months.

This sample delivery group contained two groundwater samples that were collected from the 3865-3875 West Henrietta Road Site and shipped to the laboratory, via FedEx, on 06Oct15. They arrived the next morning. Although an inspection of the samples was not documented in the raw data, the Case Narrative indicates that the samples arrived intact and were properly chilled and preserved. A cooler temperature of 2.0°C was recorded on the field custody chain. Custody seals were in place at the time of receipt. The analysis of this pair of samples was completed on 12Oct15 and 15Oct15. The SW-846 holding time limitation was satisfied.

VOLATILE ORGANICS

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks were analyzed with this group of samples. Both of these blanks demonstrated acceptable chromatography and were free of targeted analyte contamination exceeding the laboratory's reporting limit.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence that included samples from this program. An Instrument Performance Check Form is present for each BFB evaluation. The BFB tunes associated with this group of samples satisfied the program acceptance criteria.

Calibrations

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 04Sep15 and 29Sep15. Standards of 0.25, 0.5, 1.0, 2.0, 5.0, 10, 25, 40, 75, 100 and 200 µg/l were included. With the exception of trichloroethene on 04Sep15, each targeted analyte produced the required levels of instrument response and demonstrated an acceptable degree of linearity during both calibrations. Trichloroethene standards, however, failed to produce the required, minimum levels of instrument response. The trichloroethene (TCE) results from this pair of samples have been qualified as estimations based on this performance.

Calibration check standards were analyzed on 12Oct15 and 15Oct15, prior to the twelve-hour periods of instrument operation that included samples from this program. When compared to the initial instrument calibrations, an unacceptable shift was observed in the response of bromomethane (26%) on 12Oct15. The bromomethane (BRMANE) results from this group of samples have been qualified as estimations based on this performance. The remaining targeted analytes demonstrated an acceptable level of instrument stability during both calibration checks. It is noted the response of trichloroethene remained low.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were properly prepared using the laboratory's acceptance criteria. When compared to the ASP requirements, however, an acceptable recovery was reported for each of the surrogate additions to this group of samples.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal

standard response and retention times. When compared to this criteria, acceptable performance was reported for the internal standard additions to this group of samples.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. The entire list of targeted analytes was added to two portions of this sample. The recoveries reported for these additions included low results for acetone (45%,44%). Data has not been qualified based on this performance, however, because it may not be representative of the matrix of samples from the 3865-3875 West Henrietta Road site. The remaining targeted analytes demonstrated acceptable levels of measurement precision and accuracy.

Recoveries were also reported for a pair of MS/MSD samples that were analyzed on 15Oct15. This information was provided without supporting raw data. The recoveries reported from these samples should not be considered.

Two pairs of spiked blanks (LCS/LCSD) were analyzed with this delivery group. Both of these LCS/LCSD pairs demonstrated acceptable levels of measurement precision and accuracy.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

Reported Analytes

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Reference mass spectra were provided to confirm the identification of each analyte that was detected in this group of samples.

The identifications of MTBE and methylcyclohexane in MW-7 could not be confirmed, based on the mass spectra references included in the raw data. MTBE and methylcyclohexane (METHCYCOLHEX) should be interpreted as undetected in the affected sample.

SUMMARY OF QUALIFIED DATA

3865-3875 WEST HENRIETTA ROAD

SAMPLED: OCTOBER 2015

		CALIBRATE BRMANE	CALIBRATE TCE	SPECTRA ID MTBE	SPECTRA ID METHCYCLOHEX	.
MW-7	(L793134-1)	5.0UJ	1.0UJ	1.0U	20U	
MW-3R	(1793134-2)	5.0UJ	1.0UJ			



Collected date/time: 10/06/15 12:17

L793134

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	10/12/2015 19:10	WG821352
Benzene	816		20.0	20	10/15/2015 13:26	WG822158
Bromochloromethane	ND		1.00	1	10/12/2015 19:10	WG821352
Bromodichloromethane	ND		1.00	1	10/12/2015 19:10	WG821352
Bromoform	ND		1.00	1	10/12/2015 19:10	WG821352
Bromomethane	5.0 ND UJ		5.00	1	10/12/2015 19:10	WG821352
Carbon disulfide	ND		1.00	1	10/12/2015 19:10	WG821352
Carbon tetrachloride	ND		1.00	1	10/12/2015 19:10	WG821352
Chlorobenzene	ND		1.00	1	10/12/2015 19:10	WG821352
Chlorodibromomethane	ND		1.00	1	10/12/2015 19:10	WG821352
Chloroethane	ND		5.00	1	10/12/2015 19:10	WG821352
Chloroform	ND		5.00	1	10/12/2015 19:10	WG821352
Chloromethane	ND		2.50	1	10/12/2015 19:10	WG821352
Cyclohexane	113		20.0	20	10/15/2015 13:26	WG822158
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/12/2015 19:10	WG821352
1,2-Dibromoethane	ND		1.00	1	10/12/2015 19:10	WG821352
1,2-Dichlorobenzene	ND		1.00	1	10/12/2015 19:10	WG821352
1,3-Dichlorobenzene	ND		1.00	1	10/12/2015 19:10	WG821352
1,4-Dichlorobenzene	ND		1.00	1	10/12/2015 19:10	WG821352
Dichlorodifluoromethane	ND		5.00	1	10/12/2015 19:10	WG821352
1,1-Dichloroethane	ND		1.00	1	10/12/2015 19:10	WG821352
1,2-Dichloroethane	ND		1.00	1	10/12/2015 19:10	WG821352
1,1-Dichloroethene	ND		1.00	1	10/12/2015 19:10	WG821352
cis-1,2-Dichloroethene	ND		1.00	1	10/12/2015 19:10	WG821352
trans-1,2-Dichloroethene	ND		1.00	1	10/12/2015 19:10	WG821352
1,2-Dichloropropane	ND		1.00	1	10/12/2015 19:10	WG821352
cis-1,3-Dichloropropene	ND		1.00	1	10/12/2015 19:10	WG821352
trans-1,3-Dichloropropene	ND		1.00	1	10/12/2015 19:10	WG821352
Ethylbenzene	786		20.0	20	10/15/2015 13:26	WG822158
2-Hexanone	ND		10.0	1	10/12/2015 19:10	WG821352
Isopropylbenzene	43.0		1.00	1	10/12/2015 19:10	WG821352
2-Butanone (MEK)	ND		10.0	1	10/12/2015 19:10	WG821352
Methyl Acetate	ND		20.0	1	10/12/2015 19:10	WG821352
Methyl Cyclohexane	20 52.8 U		20.0	20	10/15/2015 13:26	WG822158
Methylene Chloride	ND		5.00	1	10/12/2015 19:10	WG821352
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/12/2015 19:10	WG821352
Methyl tert-butyl ether	1.0 1.48 U		1.00	1	10/12/2015 19:10	WG821352
Naphthalene	423		100	20	10/15/2015 13:26	WG822158
Styrene	ND		1.00	1	10/12/2015 19:10	WG821352
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/12/2015 19:10	WG821352
Tetrachloroethene	ND		1.00	1	10/12/2015 19:10	WG821352
Toluene	73.9		5.00	1	10/12/2015 19:10	WG821352
1,2,3-Trichlorobenzene	ND		1.00	1	10/12/2015 19:10	WG821352
1,2,4-Trichlorobenzene	ND		1.00	1	10/12/2015 19:10	WG821352
1,1,1-Trichloroethane	ND		1.00	1	10/12/2015 19:10	WG821352
1,1,2-Trichloroethane	ND		1.00	1	10/12/2015 19:10	WG821352
Trichloroethene	1.0 ND UJ		1.00	1	10/12/2015 19:10	WG821352
Trichlorofluoromethane	ND		5.00	1	10/12/2015 19:10	WG821352
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/12/2015 19:10	WG821352
Vinyl chloride	ND		1.00	1	10/12/2015 19:10	WG821352
o-Xylene	143		1.00	1	10/12/2015 19:10	WG821352
m&p-Xylenes	2620		40.0	20	10/15/2015 13:26	WG822158
n-Butylbenzene	11.0		1.00	1	10/12/2015 19:10	WG821352
sec-Butylbenzene	7.89		1.00	1	10/12/2015 19:10	WG821352
1,2,4-Trimethylbenzene	1380		20.0	20	10/15/2015 13:26	WG822158
n-Propylbenzene	89.1		1.00	1	10/12/2015 19:10	WG821352



Collected date/time: 10/06/15 12:17

L793134

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	7.27		1.00	1	10/12/2015 19:10	WG821352
tert-Butylbenzene	ND		1.00	1	10/12/2015 19:10	WG821352
1,3,5-Trimethylbenzene	196		1.00	1	10/12/2015 19:10	WG821352
(S) Toluene-d8	107		90.0-115		10/12/2015 19:10	WG821352
(S) Toluene-d8	98.6		90.0-115		10/15/2015 13:26	WG822158
(S) 4-Bromofluorobenzene	99.5		80.1-120		10/15/2015 13:26	WG822158
(S) 4-Bromofluorobenzene	94.2		80.1-120		10/12/2015 19:10	WG821352
(S) Dibromofluoromethane	107		79.0-121		10/12/2015 19:10	WG821352
(S) Dibromofluoromethane	97.1		79.0-121		10/15/2015 13:26	WG822158
(S) o,a,o-Trifluorotoluene	100		90.4-116		10/15/2015 13:26	WG822158
(S) o,a,o-Trifluorotoluene	108		90.4-116		10/12/2015 19:10	WG821352



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	10/12/2015 19:33	WG821352
Benzene	ND		1.00	1	10/15/2015 14:31	WG822158
Bromochloromethane	ND		1.00	1	10/12/2015 19:33	WG821352
Bromodichloromethane	ND		1.00	1	10/12/2015 19:33	WG821352
Bromoform	ND		1.00	1	10/12/2015 19:33	WG821352
Bromomethane	ND		5.00	1	10/12/2015 19:33	WG821352
Carbon disulfide	ND		1.00	1	10/12/2015 19:33	WG821352
Carbon tetrachloride	ND		1.00	1	10/12/2015 19:33	WG821352
Chlorobenzene -	106		1.00	1	10/12/2015 19:33	WG821352
Chlorodibromomethane	ND		1.00	1	10/12/2015 19:33	WG821352
Chloroethane	ND		5.00	1	10/12/2015 19:33	WG821352
Chloroform	ND		5.00	1	10/12/2015 19:33	WG821352
Chloromethane	ND		2.50	1	10/12/2015 19:33	WG821352
Cyclohexane	ND		1.00	1	10/12/2015 19:33	WG821352
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/12/2015 19:33	WG821352
1,2-Dibromoethane	ND		1.00	1	10/12/2015 19:33	WG821352
1,2-Dichlorobenzene -	2.42		1.00	1	10/12/2015 19:33	WG821352
1,3-Dichlorobenzene	ND		1.00	1	10/12/2015 19:33	WG821352
1,4-Dichlorobenzene	ND		1.00	1	10/12/2015 19:33	WG821352
Dichlorodifluoromethane	ND		5.00	1	10/12/2015 19:33	WG821352
1,1-Dichloroethane	ND		1.00	1	10/12/2015 19:33	WG821352
1,2-Dichloroethane	ND		1.00	1	10/12/2015 19:33	WG821352
1,1-Dichloroethene	ND		1.00	1	10/12/2015 19:33	WG821352
cis-1,2-Dichloroethene	ND		1.00	1	10/12/2015 19:33	WG821352
trans-1,2-Dichloroethene	ND		1.00	1	10/12/2015 19:33	WG821352
1,2-Dichloropropane	ND		1.00	1	10/12/2015 19:33	WG821352
cis-1,3-Dichloropropene	ND		1.00	1	10/12/2015 19:33	WG821352
trans-1,3-Dichloropropene	ND		1.00	1	10/12/2015 19:33	WG821352
Ethylbenzene	ND		1.00	1	10/15/2015 14:31	WG822158
2-Hexanone	ND		10.0	1	10/12/2015 19:33	WG821352
Isopropylbenzene	ND		1.00	1	10/12/2015 19:33	WG821352
2-Butanone (MEK)	ND		10.0	1	10/12/2015 19:33	WG821352
Methyl Acetate	ND		20.0	1	10/12/2015 19:33	WG821352
Methyl Cyclohexane	ND		1.00	1	10/12/2015 19:33	WG821352
Methylene Chloride	ND		5.00	1	10/12/2015 19:33	WG821352
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/12/2015 19:33	WG821352
Methyl tert-butyl ether -	1.56		1.00	1	10/12/2015 19:33	WG821352
Naphthalene	ND		5.00	1	10/15/2015 14:31	WG822158
Styrene	ND		1.00	1	10/12/2015 19:33	WG821352
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/12/2015 19:33	WG821352
Tetrachloroethene	ND		1.00	1	10/12/2015 19:33	WG821352
Toluene	ND		5.00	1	10/12/2015 19:33	WG821352
1,2,3-Trichlorobenzene	ND		1.00	1	10/12/2015 19:33	WG821352
1,2,4-Trichlorobenzene	ND		1.00	1	10/12/2015 19:33	WG821352
1,1,1-Trichloroethane	ND		1.00	1	10/12/2015 19:33	WG821352
1,1,2-Trichloroethane	ND		1.00	1	10/12/2015 19:33	WG821352
Trichloroethene	ND		1.00	1	10/12/2015 19:33	WG821352
Trichlorofluoromethane	ND		5.00	1	10/12/2015 19:33	WG821352
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/12/2015 19:33	WG821352
Vinyl chloride	ND		1.00	1	10/12/2015 19:33	WG821352
o-Xylene	ND		1.00	1	10/12/2015 19:33	WG821352
m&p-Xylenes -	3.70		2.00	1	10/12/2015 19:33	WG821352
n-Butylbenzene	ND		1.00	1	10/12/2015 19:33	WG821352
sec-Butylbenzene	ND		1.00	1	10/12/2015 19:33	WG821352
1,2,4-Trimethylbenzene	ND		1.00	1	10/15/2015 14:31	WG822158
n-Propylbenzene	ND		1.00	1	10/12/2015 19:33	WG821352

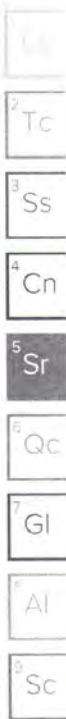


Collected date/time: 10/06/15 11:01

L793134

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	ND		1.00	1	10/12/2015 19:33	WG821352
tert-Butylbenzene	ND		1.00	1	10/12/2015 19:33	WG821352
1,3,5-Trimethylbenzene	ND		1.00	1	10/12/2015 19:33	WG821352
(S) Toluene-d8	103		90.0-115		10/12/2015 19:33	WG821352
(S) Toluene-d8	97.7		90.0-115		10/15/2015 14:31	WG822158
(S) 4-Bromofluorobenzene	97.2		80.1-120		10/15/2015 14:31	WG822158
(S) 4-Bromofluorobenzene	101		80.1-120		10/12/2015 19:33	WG821352
(S) Dibromofluoromethane	99.1		79.0-121		10/12/2015 19:33	WG821352
(S) Dibromofluoromethane	102		79.0-121		10/15/2015 14:31	WG822158
(S) a,a,a-Trifluorotoluene	98.4		90.4-116		10/15/2015 14:31	WG822158
(S) a,a,a-Trifluorotoluene	106		90.4-116		10/12/2015 19:33	WG821352



WG821352

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L793134-01.02

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3085132-3 10/12/15 16:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U ✓		10.0	50.0
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
n-Propylbenzene	U		0.349	1.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

WG821352

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L793134-01.02

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3085132-3 10/12/15 16:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.780	5.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	104			90.0-115
(S) Dibromofluoromethane	103			79.0-121
(S) o,a,a-Trifluorotoluene	106			90.4-116
(S) 4-Bromofluorobenzene	103			80.1-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3085132-1 10/12/15 13:49 • (LCSD) R3085132-2 10/12/15 14:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	134	136	107	109	28.7-175			1.59	20.9
Bromodichloromethane	25.0	22.1	21.7	88.5	86.9	75.5-121			1.83	20
Bromochloromethane	25.0	25.4	24.9	102	99.8	78.9-123			1.76	20
Bromoform	25.0	23.6	23.2	94.6	92.8	71.5-131			1.91	20
Bromomethane	25.0	30.7	29.9	123	119	22.4-187			2.62	20
n-Butylbenzene	25.0	22.9	22.9	91.4	91.7	75.9-134			0.280	20
sec-Butylbenzene	25.0	24.1	23.3	96.3	93.2	80.6-126			3.22	20
tert-Butylbenzene	25.0	23.9	23.6	95.7	94.5	79.3-127			1.21	20
Carbon disulfide	25.0	23.3	22.6	93.3	90.5	53.0-134			3.14	20
Carbon tetrachloride	25.0	24.5	20.7	98.0	82.8	70.9-129			16.8	20
Chlorobenzene	25.0	24.1	23.7	96.4	94.8	79.7-122			1.67	20
Chlorodibromomethane	25.0	23.4	23.1	93.4	92.4	78.2-124			1.15	20
Chloroethane	25.0	25.5	25.2	102	101	41.2-153			1.12	20
Chloroform	25.0	23.9	23.2	95.7	92.6	73.2-125			3.24	20

WG821352

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L793134-01.02

ONE LAB. NATIONWIDE



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3085132-1 10/12/15 13:49 • (LCSD) R3085132-2 10/12/15 14:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. % ✓	LCSD Rec. % ✓	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	25.0	24.4	23.9	97.7	95.5	55.8-134			2.31	20
1,2-Dibromo-3-Chloropropane	25.0	22.3	22.1	89.0	88.5	64.8-131			0.550	20
1,2-Dibromoethane	25.0	23.2	23.1	92.7	92.5	79.8-122			0.270	20
1,2-Dichlorobenzene	25.0	23.3	23.3	93.2	93.2	84.7-118			0.0600	20
1,3-Dichlorobenzene	25.0	24.3	23.5	97.2	94.1	77.6-127			3.16	20
1,4-Dichlorobenzene	25.0	23.3	23.2	93.4	92.9	82.2-114			0.570	20
Dichlorodifluoromethane	25.0	24.2	22.8	96.8	91.2	56.0-134			6.01	20
1,1-Dichloroethane	25.0	25.6	24.6	102	98.2	71.7-127			3.96	20
1,2-Dichloroethane	25.0	22.5	22.5	89.9	90.1	65.3-126			0.180	20
1,1-Dichloroethene	25.0	25.3	24.4	101 ✓	97.5 ✓	59.9-137			3.62	20
cis-1,2-Dichloroethene	25.0	25.8	25.0	103	100	77.3-122			2.86	20
trans-1,2-Dichloroethene	25.0	24.6	24.9	98.2	99.4	72.6-125			1.22	20
1,2-Dichloropropane	25.0	24.2	24.1	96.8	96.3	77.4-125			0.520	20
cis-1,3-Dichloropropene	25.0	24.0	23.4	95.8	93.8	77.7-124			2.18	20
trans-1,3-Dichloropropene	25.0	23.0	22.7	91.9	90.8	73.5-127			1.19	20
2-Hexanone	125	122	125	98.0	100	59.4-151			2.22	20
Isopropylbenzene	25.0	23.8	22.9	95.2	91.5	81.6-124			3.95	20
p-Isopropyltoluene	25.0	24.1	23.1	96.3	92.5	77.6-129			3.94	20
2-Butanone (MEK)	125	120	122	96.2	97.6	46.4-155			1.42	20
Methylene Chloride	25.0	24.0	23.3	96.2	93.3	69.5-120			2.97	20
4-Methyl-2-pentanone (MIBK)	125	98.5	101	78.8	80.7	63.3-138			2.27	20
Methyl tert-butyl ether	25.0	24.5	24.3	98.0	97.1	70.1-125			0.920	20
n-Propylbenzene	25.0	24.1	23.5	96.3	94.2	81.9-122			2.24	20
Styrene	25.0	24.5	23.6	98.1	94.3	79.9-124			3.99	20
1,1,2,2-Tetrachloroethane	25.0	23.2	22.6	92.8	90.3	79.3-123			2.77	20
Tetrachloroethene	25.0	23.5	22.9	94.0	91.5	73.5-130			2.68	20
Toluene	25.0	23.7	22.9	94.9 ✓	91.8 ✓	77.9-116			3.41	20
1,1,2-Trichlorotrifluoroethane	25.0	26.4	25.7	106	103	62.0-141			2.76	20
1,2,3-Trichlorobenzene	25.0	24.5	24.7	97.9	98.7	75.7-134			0.880	20
1,2,4-Trichlorobenzene	25.0	25.0	25.7	99.8	103	76.1-136			2.91	20
1,1,1-Trichloroethane	25.0	23.7	22.9	94.7	91.5	71.1-129			3.38	20
1,1,2-Trichloroethane	25.0	23.1	23.0	92.5	91.9	81.6-120			0.590	20
Trichloroethene	25.0	24.0	23.8	96.1 ✓	95.4 ✓	79.5-121			0.720	20
Trichlorofluoromethane	25.0	26.6	25.6	107	102	49.1-157			4.01	20
1,3,5-Trimethylbenzene	25.0	23.3	22.5	93.0	89.9	81.0-123			3.38	20
Vinyl chloride	25.0	26.3	25.2	105	101	61.5-134			4.16	20
o-Xylene	25.0	23.6	23.1	94.3	92.3	79.1-123			2.09	20
m&p-Xylenes	50.0	47.2	45.9	94.3	91.8	78.5-122			2.74	20
(S) Toluene-d8				106	106	90.0-115				
(S) Dibromofluoromethane				107	106	79.0-121				



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3085132-1 10/12/15 13:49 • (LCSD) R3085132-2 10/12/15 14:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. % ✓	LCSD Rec. % ✓	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) o,a,a-Trifluorotoluene				106	106	90.4-116				
(S) 4-Bromofluorobenzene				102	101	80.1-120				

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3085132-4 10/12/15 17:17 • (MSD) R3085132-5 10/12/15 17:40

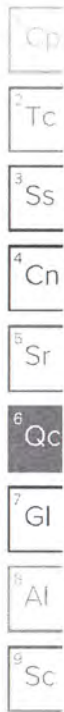
Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125		59.5	58.6	45.0	44.2	1	25.0-156			1.63	21.5
Bromodichloromethane	25.0		20.3	20.3	81.1	81.2	1	69.2-127			0.160	20
Bromochloromethane	25.0		22.3	22.6	89.2	90.2	1	74.4-128			1.15	20
Bromoform	25.0		23.0	23.5	92.0	93.8	1	66.3-140			1.96	20
Bromomethane	25.0		22.6	22.1	90.5	88.5	1	16.6-183			2.29	20.5
n-Butylbenzene	25.0		20.4	20.7	81.6	82.8	1	64.8-145			1.43	20
sec-Butylbenzene	25.0		22.0	22.7	88.1	90.8	1	66.8-139			3.03	20
tert-Butylbenzene	25.0		22.3	23.0	89.1	92.0	1	67.1-138			3.15	20
Carbon disulfide	25.0		14.0	14.1	55.9	56.3	1	34.9-138			0.680	20
Carbon tetrachloride	25.0		20.4	18.4	81.7	73.7	1	60.6-139			10.3	20
Chlorobenzene	25.0		22.3	22.9	89.2 ✓	91.8 ✓	1	70.1-130			2.88	20
Chlorodibromomethane	25.0		22.5	22.7	90.1	90.9	1	71.6-132			0.790	20
Chloroethane	25.0		18.4	18.8	73.4	75.3	1	33.3-155			2.56	20
Chloroform	25.0		21.1	21.3	84.5	85.2	1	66.1-133			0.930	20
Chloromethane	25.0		17.2	17.0	69.0	68.1	1	40.7-139			1.23	20
1,2-Dibromo-3-Chloropropane	25.0		22.2	23.0	88.7	92.0	1	63.9-142			3.72	20.2
1,2-Dibromoethane	25.0		22.0	22.6	87.9	90.5	1	73.8-131			2.88	20
1,2-Dichlorobenzene	25.0		22.0	22.4	87.9	89.7	1	77.4-127			2.08	20
1,3-Dichlorobenzene	25.0		22.5	23.3	90.1	93.1	1	67.9-136			3.29	20
1,4-Dichlorobenzene	25.0		21.8	21.6	87.4	86.3	1	74.4-123			1.16	20
Dichlorodifluoromethane	25.0		18.3	18.2	73.0	72.9	1	42.2-146			0.210	20
1,1-Dichloroethane	25.0		21.9	22.4	87.8	89.5	1	64.0-134			1.94	20
1,2-Dichloroethane	25.0		20.1	19.9	80.5	79.4	1	60.7-132			1.32	20
1,1-Dichloroethene	25.0		20.2	19.8	80.7 ✓	79.3 ✓	1	48.8-144			1.75	20
cis-1,2-Dichloroethene	25.0		21.9	22.3	87.7	89.0	1	60.6-136			1.51	20
trans-1,2-Dichloroethene	25.0		20.0	20.0	79.8	80.1	1	61.0-132			0.310	20
1,2-Dichloropropane	25.0		22.2	22.1	88.6	88.4	1	69.7-130			0.300	20
cis-1,3-Dichloropropene	25.0		21.9	21.3	87.6	85.3	1	71.1-129			2.68	20
trans-1,3-Dichloropropene	25.0		21.1	21.0	84.4	83.9	1	66.3-136			0.510	20
2-Hexanone	125		96.7	99.5	77.3	79.6	1	59.4-154			2.89	20.1
Isopropylbenzene	25.0		21.4	22.2	85.8	88.6	1	67.4-136			3.24	20



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3085132-4 10/12/15 17:17 • (MSD) R3085132-5 10/12/15 17:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	25.0		21.3	22.3	85.2	89.1	1	62.8-143			4.51	20
2-Butanone (MEK)	125		78.9	80.2	62.4	63.4	1	45.0-156			1.59	20.8
Methylene Chloride	25.0		20.5	20.7	82.1	82.8	1	61.5-125			0.900	20
4-Methyl-2-pentanone (MIBK)	125		93.9	95.5	75.1	76.4	1	60.7-150			1.70	20
Methyl tert-butyl ether	25.0		23.2	23.0	92.8	91.9	1	61.4-136			0.880	20
n-Propylbenzene	25.0		21.7	22.3	86.8	89.3	1	63.2-139			2.79	20
Styrene	25.0		22.0	22.5	88.1	89.9	1	68.2-133			2.07	20
1,1,2,2-Tetrachloroethane	25.0		22.9	23.6	91.6	94.2	1	64.9-145			2.80	20
Tetrachloroethene	25.0		20.2	20.9	80.9	83.7	1	57.4-141			3.50	20
Toluene	25.0		20.6	20.9	82.3 ✓	83.4 ✓	1	67.8-124			1.32	20
1,1,2-Trichlorotrifluoroethane	25.0		22.4	22.9	89.8	91.5	1	53.7-150			1.88	20
1,2,3-Trichlorobenzene	25.0		22.6	23.4	90.5	93.7	1	65.7-143			3.46	20
1,2,4-Trichlorobenzene	25.0		23.3	23.3	93.0	93.3	1	67.0-146			0.220	20
1,1,1-Trichloroethane	25.0		20.1	20.4	80.6	81.7	1	58.7-134			1.46	20
1,1,2-Trichloroethane	25.0		22.4	23.0	89.7 ✓	91.8 ✓	1	74.1-130			2.32	20
Trichloroethene	25.0		20.5	20.7	82.1 ✓	82.8 ✓	1	48.9-148			0.780	20
Trichlorofluoromethane	25.0		21.1	21.1	84.3	84.6	1	39.9-165			0.290	20
1,3,5-Trimethylbenzene	25.0		20.7	20.9	82.6	83.7	1	67.9-134			1.27	20
Vinyl chloride	25.0		18.6	19.1	74.4	76.4	1	44.3-143			2.73	20
o-Xylene	25.0		21.6	22.2	86.3	88.9	1	67.1-133			2.90	20
m&p-Xylenes	50.0		41.9	42.9	83.7	85.8	1	64.1-133			2.43	20
(S) Toluene-d8					106	105		90.0-115				
(S) Dibromofluoromethane					103	103		79.0-121				
(S) o,a,a-Trifluorotoluene					106	106		90.4-116				
(S) 4-Bromofluorobenzene					101	102		80.1-120				



WG822158

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L793134-01.02

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3085558-3 10/15/15 12:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Cyclohexane	U		0.390	1.00
Ethylbenzene	U		0.384	1.00
Methyl Cyclohexane	U		0.380	1.00
Naphthalene	U		1.00	5.00
1,2,4-Trimethylbenzene	U		0.373	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	99.1			90.0-115
(S) Dibromofluoromethane	103			79.0-121
(S) o,a,a-Trifluorotoluene	101			90.4-116
(S) 4-Bromofluorobenzene	100			80.1-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3085558-1 10/15/15 11:06 • (LCSD) R3085558-2 10/15/15 11:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	25.0	26.6	100	106	73.0-122			6.17	20
Ethylbenzene	25.0	24.5	26.3	98.0	105	80.9-121			7.04	20
Naphthalene	25.0	20.5	23.0	82.1	92.0	69.7-134			11.4	20
1,2,4-Trimethylbenzene	25.0	21.7	25.5	87.0	102	79.0-122			15.8	20
m&p-Xylenes	50.0	47.9	52.1	95.7	104	78.5-122			8.46	20
(S) Toluene-d8				97.2	98.8	90.0-115				
(S) Dibromofluoromethane				98.0	101	79.0-121				
(S) o,a,a-Trifluorotoluene				96.7	100	90.4-116				
(S) 4-Bromofluorobenzene				91.8	96.9	80.1-120				

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3085558-4 10/15/15 14:51 • (MSD) R3085558-5 10/15/15 15:11

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	25.0		26.6	26.0	106	104	1	58.6-133			2.50	20
Ethylbenzene	25.0		26.0	25.3	104	101	1	62.7-136			2.74	20
Naphthalene	25.0		21.0	22.6	82.8	89.0	1	61.8-143			7.11	20
1,2,4-Trimethylbenzene	25.0		24.4	23.7	97.8	94.8	1	60.5-137			3.12	20
m&p-Xylenes	50.0		50.8	49.5	102	99.0	1	64.1-133			2.53	20
(S) Toluene-d8					98.6	97.9		90.0-115				
(S) Dibromofluoromethane					101	103		79.0-121				

WG822158

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L793134-01.02

ONE LAB. NATIONWIDE.



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3085558-4 10/15/15 14:51 • (MSD) R3085558-5 10/15/15 15:11

Analyte	Spike Amount ug/l	Original Result	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
(S) <i>a,a,a</i> -Trifluorotoluene					99.8	99.0		90.4-116				
(S) 4-Bromofluorobenzene					97.3	97.8		80.1-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

17 of 522

PAGE:

Quality Control Summary

SDG: L793134

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	209395	Matrix:	Water - mg/L
Project:	Derchel PRR GW Sampling 10/6	EPA ID:	TN00003
Collection Date:	10/6/2015	Analytic Batch:	WG821352
Analysis Date:	10/12/2015	Analyst:	591
Instrument ID:	VOCMS30		
Sample Numbers:	L793134-01, -02		

Method Blank Summary

Instrument	Client Sample ID	Lab Sample ID	File Name	Analysis Date	Analysis Time
VOCMS30	LCS WG821352	LCS WG821352	1012a_03.D	10/12/2015	1:49 PM
VOCMS30	LCSD WG821352	LCSD WG821352	1012a_04.D	10/12/2015	2:12 PM
VOCMS30	Blank WG821352	Blank WG821352	1012A_09.D	10/12/2015	4:55 PM
VOCMS30	MS WG821352	MS WG821352	1012A_10.D	10/12/2015	5:17 PM
VOCMS30	MSD WG821352	MSD WG821352	1012A_11.D	10/12/2015	5:40 PM
VOCMS30	MW-7	L793134-01	1012A_15.D	10/12/2015	7:10 PM
VOCMS30	MW-3R	L793134-02	1012A_16.D	10/12/2015	7:33 PM

Quality Control Summary

SDG: L793134

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	209395	Matrix:	Water - mg/L
Project:	Derchel PRR GW Sampling 10/6	EPA ID:	TN00003
Collection Date:	10/6/2015	Analytic Batch:	WG822158
Analysis Date:	10/15/2015	Analyst:	522
Instrument ID:	VOCMS31		
Sample Numbers:	L793134-01, -02		

Method Blank Summary

Instrument	Client Sample ID	Lab Sample ID	File Name	Analysis Date	Analysis Time
VOCMS31	LCS WG822158	LCS WG822158	1015_04.D	10/15/2015	11:06 AM
VOCMS31	LCSD WG822158	LCSD WG822158	1015_05.D	10/15/2015	11:26 AM
VOCMS31	Blank WG822158	Blank WG822158	1015_09.D	10/15/2015	12:55 PM
VOCMS31	MW-7	L793134-01	1015_10.D	10/15/2015	1:26 PM
VOCMS31	MW-3R	L793134-02	1015_11.D	10/15/2015	2:31 PM
VOCMS31	MS WG822158	MS WG822158	1015_12.D	10/15/2015	2:51 PM
VOCMS31	MSD WG822158	MSD WG822158	1015_13.D	10/15/2015	3:11 PM

Quality Control Summary

SDG: L793134
LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	209395	Matrix:	Water - mg/L
Project:	Derchel PRR GW Sampling 10/6	EPA ID:	TN00003
Collection Date:	10/6/2015	Analytic Batch:	WG821352
Analysis Date:	10/12/2015	Analyst:	591
Instrument ID:	VOCMS30		
Sample Numbers:	L793134-01, -02		

Internal Standard Response and Retention Time Summary

File ID: 1012a_02
Analyzed: 10/12/15 132700

	IS1		IS2		IS3		IS4	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	518146	4.36	932244	4.69	143211	5.86	404034	8.25
Upper Limit	1040000	4.86	1860000	5.19	286000	6.36	808000	8.75
Lower Limit	259000	3.86	466000	4.19	71600	5.36	202000	7.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
LCSD WG821352	533347	✓ 4.36	947445	✓ 4.69	145402	✓ 5.86	408814	✓ 8.25
LCS WG821352	523474	4.36	932207	4.69	141829	5.86	407039	8.25

Legend:

IS1 -- PENTAFLUOROBENZENE
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS4 -- 1,4-DICHLOROBENZENE-D4

Quality Control Summary

SDG: L793134
LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	209395	Matrix:	Water - mg/L
Project:	Derchel PRR GW Sampling 10/6	EPA ID:	TN00003
Collection Date:	10/6/2015	Analytic Batch:	WG822158
Analysis Date:	10/15/2015	Analyst:	522
Instrument ID:	VOCMS31		
Sample Numbers:	L793134-01, -02		

Internal Standard Response and Retention Time Summary

File ID: 1015_02
Analyzed: 10/15/15 102500

	IS1		IS2		IS3		IS4	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	323064	4.07	550262	4.40	93486	5.58	237224	8.02
Upper Limit	646000	4.57	1100000	4.90	187000	6.08	474000	8.52
Lower Limit	162000	3.57	275000	3.90	46700	5.08	119000	7.52
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L793134-01	361908	4.08	610693	4.41	101031	5.59	267230	8.02
L793134-02	337868	4.08	587084	4.41	97551	5.59	237716	8.02
MSD WG822158	325880	4.08	558845	4.41	93680	5.59	237361	8.02
MS WG822158	322340	4.08	545921	4.41	92951	5.59	235471	8.02
LCSD WG822158	332457	4.08	563822	4.40	94825	5.58	240958	8.02
LCS WG822158	364826	4.08	620431	4.40	103702	5.58	240206	8.02
BLANK WG822158	303205	4.08	520792	4.41	88681	5.59	228907	8.02

Legend:

IS1 -- PENTAFLUOROBENZENE
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS4 -- 1,4-DICHLOROBENZENE-D4

Quality Control Summary

SDG: L793134

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	209395	Matrix:	Water - mg/L
Project:	Derchel PRR GW Sampling 10/6	EPA ID:	TN000003
Collection Date:	10/6/2015	Analytic Batch:	WG821352
Analysis Date:	10/12/2015	Analyst:	591
Instrument ID:	VOCMS30		
Sample Numbers:	L793134-01, -02		

Surrogate Summary

			BFB		TFT		DFM		TD8	
Laboratory	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
Sample ID										
L793134-01	VOCMS30	1012A_15	0.0377	94.2 ✓	0.0434	108 ✓	0.0430	107 ✓	0.0427	107 ✓
L793134-02	VOCMS30	1012A_16	0.0406	101	0.0422	106	0.0396	99.1	0.0412	103
LCS WG821352	VOCMS30	1012a_03	0.0408	102	0.0426	106	0.0428	107	0.0426	106
LCSD WG821352	VOCMS30	1012a_04	0.0403	101	0.0423	106	0.0424	106	0.0426	106
BLANK WG821352	VOCMS30	1012A_09	0.0410	103	0.0422	106	0.0412	103	0.0416	104
MS WG821352	VOCMS30	1012A_10	0.0403	101	0.0423	106	0.0413	103	0.0422	106
MSD WG821352	VOCMS30	1012A_11	0.0407	102	0.0423	106	0.0413	103	0.0419	105

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 80.1 - 120

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 90.4 - 116

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 79 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 90 - 115

Quality Control Summary

SDG: L793134
LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	209395	Matrix:	Water - mg/L
Project:	Derchel PRR GW Sampling 10/6	EPA ID:	TN00003
Collection Date:	10/6/2015	Analytic Batch:	WG822158
Analysis Date:	10/15/2015	Analyst:	522
Instrument ID:	VOCMS31		
Sample Numbers:	L793134-01, -02		

Surrogate Summary

			BFB		TFT		DFM		TD8	
Laboratory	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
Sample ID										
L793134-01	VOCMS31	1015_10	0.0398	99.5 ✓	0.0400	100 ✓	0.0388	97.1 ✓	0.0395	98.6 ✓
L793134-02	VOCMS31	1015_11	0.0389	97.2	0.0394	98.4	0.0406	102	0.0391	97.7
LCS WG822158	VOCMS31	1015_04	0.0367	91.8	0.0387	96.7	0.0392	98.0	0.0389	97.2
LCSD WG822158	VOCMS31	1015_05	0.0388	96.9	0.0401	100	0.0405	101	0.0395	98.8
BLANK WG822158	VOCMS31	1015_09	0.0402	100	0.0404	101	0.0412	103	0.0396	99.1
MS WG822158	VOCMS31	1015_12	0.0389	97.3	0.0399	99.8	0.0405	101	0.0394	98.6
MSD WG822158	VOCMS31	1015_13	0.0391	97.8	0.0396	99.0	0.0414	103	0.0392	97.9

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 80.1 - 120

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 90.4 - 116

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 79 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 90 - 115

Quality Control Summary

SDG: L793134
LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260B
Project No: 209395
Project: Derchel PRR GW Sampling 10/6 EPA ID: TN00003
Collection Date: 10/6/2015
Instrument ID: VOCMS30

Instrument Performance Summary

FileID: 1012a_02.D

Date: 10/12/2015

Time: 1:27 PM

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of mass 95	15.4
75	30 - 60% of mass 95	44.4
95	100 - 100% of mass 95	100
96	5 - 9% of mass 95	6.8
173	0 - 2% of mass 174	0
174	50 - 150% of mass 95	80.4
175	5 - 9% of mass 174	7.6
176	95 - 101% of mass 174	96.1
177	5 - 9% of mass 176	6.7

This Check applies to the following samples and quality control samples

Client Sample ID	Laboratory Sample ID	Lab Filename	Date Analyzed	Time Analyzed
LCS WG821352	LCS WG821352	1012a_03.D	10/12/2015	1:49 PM
LCSD WG821352	LCSD WG821352	1012a_04.D	10/12/2015	2:12 PM
Blank WG821352	Blank WG821352	1012A_09.D	10/12/2015	4:55 PM
MS WG821352	MS WG821352	1012A_10.D	10/12/2015	5:17 PM
MSD WG821352	MSD WG821352	1012A_11.D	10/12/2015	5:40 PM
MW-7	L793134-01	1012A_15.D	10/12/2015	7:10 PM
MW-3R	L793134-02	1012A_16.D	10/12/2015	7:33 PM

Quality Control Summary

SDG: L793134
LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260B
Project No: 209395
Project: Derchel PRR GW Sampling 10/6 EPA ID: TN00003
Collection Date: 10/6/2015
Instrument ID: VOCMS31

Instrument Performance Summary

FileID: 1015_02.D

Date: 10/15/2015

Time: 10:25 AM

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of mass 95	19.7 ✓
75	30 - 60% of mass 95	50.2
95	100 - 100% of mass 95	100
96	5 - 9% of mass 95	6.7
173	0 - 2% of mass 174	1
174	50 - 150% of mass 95	69.4
175	5 - 9% of mass 174	7.5
176	95 - 101% of mass 174	95.7
177	5 - 9% of mass 176	6.5

This Check applies to the following samples and quality control samples

Client Sample ID	Laboratory Sample ID	Lab Filename	Date Analyzed	Time Analyzed
LCS WG822158	LCS WG822158	1015_04.D	10/15/2015	11:06 AM
LCSD WG822158	LCSD WG822158	1015_05.D	10/15/2015	11:26 AM
Blank WG822158	Blank WG822158	1015_09.D	10/15/2015	12:55 PM
MW-7	L793134-01	1015_10.D	10/15/2015	1:26 PM
MW-3R	L793134-02	1015_11.D	10/15/2015	2:31 PM
MS WG822158	MS WG822158	1015_12.D	10/15/2015	2:51 PM
MSD WG822158	MSD WG822158	1015_13.D	10/15/2015	3:11 PM ✓

DATA USABILITY SUMMARY REPORT

for

LABELLA ASSOCIATES, P.C.

300 State Street

Rochester, NY 14614

3865-3875 West Henrietta Road Site

Project 209395

Groundwater Samples

SDG: L842221

Sampled June 2016

VOLATILE ORGANICS

MW-3R (L842221-1)

MW-1 (L842221-2)

DATA ASSESSMENT

An ASP Category B data package containing analytical results for two groundwater samples was received from Labella Associates, P.C. on 01Jul16. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the 3865-3875 West Henrietta Road Site, were identified by Chain of Custody documents and traceable through the work of Environmental Science Corporation, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8260C, addressed determinations of volatile organics. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-33, Rev. #3, March 2013, Low/Medium Volatile Data Validation) was used as a technical reference.

The methyl acetate, cyclohexane and methylcyclohexane results from this group of samples have been rejected due to poor calibration performance. Bromomethane and trichloroethene results have been qualified as estimations.

The positive results from MW-3R have been qualified as estimations due to a low surrogate standard recovery.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Results representing a usable estimation of the conditions at the time of sampling have been flagged "J" or "UJ". Data felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature:


James B. Baldwin

Date: 20 July 16

Sample History

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the time of collection. Samples must remain chilled to 4°C between the time of collection and the time of analysis. Acid preserved VOC samples must be analyzed within 14 days of VTSR, unpreserved VOC samples within 7 days. The holding time for soils is 14 days. Semivolatile organics, pesticides and PCB samples must be extracted from aqueous samples within seven days of collection. The extracts must then be analyzed within forty days of extraction. The holding times for cyanide and mercury samples are 14 and 28 days, respectively. Metals samples must be analyzed within six months.

This sample delivery group contained two groundwater samples that were collected from the 3865-3875 West Henrietta Road Site on 14Jun16 and 15Jun16. The samples were shipped to the laboratory, via FedEx, on 16Jun16 and were received by the laboratory on 17Jun16. Although an inspection of the samples was not documented in the raw data, the Case Narrative indicates that the samples arrived intact and properly chilled and preserved. A cooler temperature of 2.3°C was recorded on the field custody chain. There is no indication that the custody seals were found on the sample cooler. This pair of samples were analyzed on 19Jun16, within the holding time limitation for unpreserved samples.

VOLATILE ORGANICS

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks were analyzed with this group of samples. Both of these blanks demonstrated acceptable chromatography and were free of targeted analyte contamination exceeding the laboratory's reporting limit.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence that included samples from this program. An Instrument Performance Check Form is present for each

BFB evaluation. The BFB tunes associated with this group of samples satisfied the program acceptance criteria.

Calibrations

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 02Jun16 and 16Jun16. Standards of 0.25, 0.5, 1.0, 2.0, 5.0, 10, 25, 40, 75, 100 and 200 µg/l were included. With the exception of bromomethane on 16Jun16, each targeted analyte produced the required levels of instrument response and demonstrated an acceptable degree of linearity during both calibrations. Although bromomethane standards produced the required levels of response, they demonstrated poor linearity on 16Jun16. Although errors might be expected in measurements of this analyte, it may be assumed that bromomethane would be detected if present in samples. Because bromomethane was not detected in this group of samples, data qualifications are not required.

Calibration check standards were analyzed on 19Jun16 and 23Jun16, prior to the twelve-hour periods of instrument operation that included samples from this program. When compared to the initial instrument calibrations, unacceptable shifts were observed in the response of bromomethane (36%), methyl acetate (97%), cyclohexane (99%) and methylcyclohexane (99%) on 19Jun16. Additionally, methyl acetate, cyclohexane, methylcyclohexane and trichloroethene failed to produce the required minimum levels of instrument response. The methyl acetate (METH ACE), cyclohexane (CYCLOHEX) and methylcyclohexane (METHCYCLOHEX) results from this delivery group have been rejected based on this performance. Bromomethane (BRMANE) and trichloroethene (TCE) results have been qualified as estimations.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were properly prepared using the laboratory's acceptance criteria. When compared to the ASP requirements, an unacceptably high recovery was reported for the dibromofluoromethane addition to MW-3R. The remaining surrogate additions to this group of samples were recovered successfully. The positive results reported from MW-3R have been qualified as estimation based on this indication of positive bias.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to this criteria, acceptable performance was reported for the internal standard additions to this group of samples.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. The entire list of targeted analytes was added to two portions of this sample. The recoveries reported for these additions included low results for tetrachloroethene (37%, 49%). Data has not been qualified based on this performance, however, because it may not be representative of the matrix of samples from the 3865-3875 West Henrietta Road site. The remaining targeted analytes demonstrated acceptable levels of measurement precision and accuracy.

Two pairs of spiked blanks (LCS/LCSD) were analyzed with this delivery group. Both of these LCS/LCSD pairs demonstrated acceptable levels of measurement precision and accuracy.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

Reported Analytes

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Reference mass spectra were provided to confirm the identification of each analyte that was detected in this group of samples. Reported concentrations have been corrected for sample volume.

SUMMARY OF QUALIFIED DATA

3865-3875 WEST HENRIETTA ROAD

SAMPLED: JUNE 2016

	CALIBRATE METH ACE	CALIBRATE CYCLOHEX	CALIBRATE METHCYCLOHEX	CALIBRATE BRMANE	CALIBRATE TCE	SURROGATE	.
MW-3R (L842221-1)	REJECT	REJECT	REJECT	5.0UJ	1.0UJ	ALL POS J	
MW-7 (1842221-2)	REJECT	REJECT	REJECT	5.0UJ	1.0UJ		

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	06/19/2016 21:38	WG881594
Benzene	ND		1.00	1	06/19/2016 21:38	WG881594
Bromochloromethane	ND		1.00	1	06/19/2016 21:38	WG881594
Bromodichloromethane	ND		1.00	1	06/19/2016 21:38	WG881594
Bromoform	ND		1.00	1	06/19/2016 21:38	WG881594
Bromomethane	ND	UJ	5.00	1	06/19/2016 21:38	WG881594
Carbon disulfide	ND		1.00	1	06/19/2016 21:38	WG881594
Carbon tetrachloride	ND		1.00	1	06/19/2016 21:38	WG881594
Chlorobenzene	103	J	1.00	1	06/19/2016 21:38	WG881594
Chlorodibromomethane	ND		1.00	1	06/19/2016 21:38	WG881594
Chloroethane	ND		5.00	1	06/19/2016 21:38	WG881594
Chloroform	ND		5.00	1	06/19/2016 21:38	WG881594
Chloromethane	ND		2.50	1	06/19/2016 21:38	WG881594
Cyclohexane	ND	R	1.00	1	06/19/2016 21:38	WG881594
1,2-Dibromo-3-Chloropropane	ND		5.00	1	06/19/2016 21:38	WG881594
1,2-Dibromoethane	ND		1.00	1	06/19/2016 21:38	WG881594
1,2-Dichlorobenzene	2.41	J	1.00	1	06/19/2016 21:38	WG881594
1,3-Dichlorobenzene	ND		1.00	1	06/19/2016 21:38	WG881594
1,4-Dichlorobenzene	ND		1.00	1	06/19/2016 21:38	WG881594
Dichlorodifluoromethane	ND		5.00	1	06/19/2016 21:38	WG881594
1,1-Dichloroethane	1.24	J	1.00	1	06/19/2016 21:38	WG881594
1,2-Dichloroethane	ND		1.00	1	06/19/2016 21:38	WG881594
1,1-Dichloroethene	ND		1.00	1	06/19/2016 21:38	WG881594
cis-1,2-Dichloroethene	ND		1.00	1	06/19/2016 21:38	WG881594
trans-1,2-Dichloroethene	ND		1.00	1	06/19/2016 21:38	WG881594
1,2-Dichloropropane	ND		1.00	1	06/19/2016 21:38	WG881594
cis-1,3-Dichloropropene	ND		1.00	1	06/19/2016 21:38	WG881594
trans-1,3-Dichloropropene	ND		1.00	1	06/19/2016 21:38	WG881594
Ethylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
2-Hexanone	ND		10.0	1	06/19/2016 21:38	WG881594
Isopropylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
2-Butanone (MEK)	ND		10.0	1	06/19/2016 21:38	WG881594
Methyl Acetate	ND	R	20.0	1	06/19/2016 21:38	WG881594
Methyl Cyclohexane	ND	R	1.00	1	06/19/2016 21:38	WG881594
Methylene Chloride	ND		5.00	1	06/19/2016 21:38	WG881594
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	06/19/2016 21:38	WG881594
Methyl tert-butyl ether	2.25	J	1.00	1	06/19/2016 21:38	WG881594
Naphthalene	ND		5.00	1	06/19/2016 21:38	WG881594
Styrene	ND		1.00	1	06/19/2016 21:38	WG881594
1,1,2,2-Tetrachloroethane	ND		1.00	1	06/19/2016 21:38	WG881594
Tetrachloroethene	ND		1.00	1	06/19/2016 21:38	WG881594
Toluene	ND		5.00	1	06/19/2016 21:38	WG881594
1,2,3-Trichlorobenzene	ND		1.00	1	06/19/2016 21:38	WG881594
1,2,4-Trichlorobenzene	ND		1.00	1	06/19/2016 21:38	WG881594
1,1,1-Trichloroethane	ND		1.00	1	06/19/2016 21:38	WG881594
1,1,2-Trichloroethane	ND		1.00	1	06/19/2016 21:38	WG881594
Trichloroethene	ND	UJ	1.00	1	06/19/2016 21:38	WG881594
Trichlorofluoromethane	ND		5.00	1	06/19/2016 21:38	WG881594
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	06/19/2016 21:38	WG881594
Vinyl chloride	ND		1.00	1	06/19/2016 21:38	WG881594
o-Xylene	ND		1.00	1	06/19/2016 21:38	WG881594
m&p-Xylenes	ND		2.00	1	06/19/2016 21:38	WG881594
n-Butylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
sec-Butylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
tert-Butylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
1,2,4-Trimethylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594

7/15

1	Cu
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

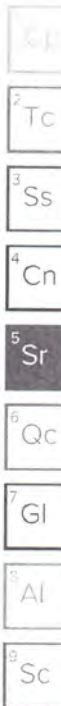


Collected date/time: 06/14/16 13:00

L842221

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
n-Propylbenzene	ND		1.00	1	06/19/2016 21:38	WG881594
p-Isopropyltoluene	ND		1.00	1	06/19/2016 21:38	WG881594
(S) Toluene-d8	106		90.0-115		06/19/2016 21:38	WG881594
(S) Dibromofluoromethane	124	J1	79.0-121		06/19/2016 21:38	WG881594
(S) a,a,a-Trifluorotoluene	104		90.4-116		06/19/2016 21:38	WG881594
(S) 4-Bromofluorobenzene	99.9		80.1-120		06/19/2016 21:38	WG881594



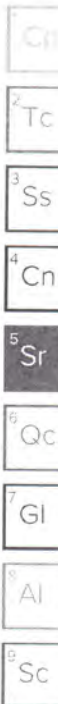
7/15

Collected date/time: 06/14/16 10:30

L842221

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	06/19/2016 22:00	WG881594
Benzene -	848		50.0	50	06/23/2016 23:56	WG882820
Bromochloromethane	ND		1.00	1	06/19/2016 22:00	WG881594
Bromodichloromethane	ND		1.00	1	06/19/2016 22:00	WG881594
Bromoform	ND		1.00	1	06/19/2016 22:00	WG881594
Bromomethane	ND UJ		5.00	1	06/19/2016 22:00	WG881594
Carbon disulfide	ND		1.00	1	06/19/2016 22:00	WG881594
Carbon tetrachloride	ND		1.00	1	06/19/2016 22:00	WG881594
Chlorobenzene	ND		1.00	1	06/19/2016 22:00	WG881594
Chlorodibromomethane	ND		1.00	1	06/19/2016 22:00	WG881594
Chloroethane	ND		5.00	1	06/19/2016 22:00	WG881594
Chloroform	ND		5.00	1	06/19/2016 22:00	WG881594
Chloromethane	ND		2.50	1	06/19/2016 22:00	WG881594
Cyclohexane -	82.3 R		1.00	1	06/19/2016 22:00	WG881594
1,2-Dibromo-3-Chloropropane	ND		5.00	1	06/19/2016 22:00	WG881594
1,2-Dibromoethane	ND		1.00	1	06/19/2016 22:00	WG881594
1,2-Dichlorobenzene	ND		1.00	1	06/19/2016 22:00	WG881594
1,3-Dichlorobenzene	ND		1.00	1	06/19/2016 22:00	WG881594
1,4-Dichlorobenzene	ND		1.00	1	06/19/2016 22:00	WG881594
Dichlorodifluoromethane	ND		5.00	1	06/19/2016 22:00	WG881594
1,1-Dichloroethane	ND		1.00	1	06/19/2016 22:00	WG881594
1,2-Dichloroethane	ND		1.00	1	06/19/2016 22:00	WG881594
1,1-Dichloroethene	ND		1.00	1	06/19/2016 22:00	WG881594
cis-1,2-Dichloroethene	ND		1.00	1	06/19/2016 22:00	WG881594
trans-1,2-Dichloroethene	ND		1.00	1	06/19/2016 22:00	WG881594
1,2-Dichloropropane	ND		1.00	1	06/19/2016 22:00	WG881594
cis-1,3-Dichloropropene	ND		1.00	1	06/19/2016 22:00	WG881594
trans-1,3-Dichloropropene	ND		1.00	1	06/19/2016 22:00	WG881594
Ethylbenzene -	258		50.0	50	06/23/2016 23:56	WG882820
2-Hexanone	ND		10.0	1	06/19/2016 22:00	WG881594
Isopropylbenzene -	21.0		1.00	1	06/19/2016 22:00	WG881594
2-Butanone (MEK)	ND		10.0	1	06/19/2016 22:00	WG881594
Methyl Acetate	ND RR		20.0	1	06/19/2016 22:00	WG881594
Methyl Cyclohexane -	37.6 R		1.00	1	06/19/2016 22:00	WG881594
Methylene Chloride	ND		5.00	1	06/19/2016 22:00	WG881594
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	06/19/2016 22:00	WG881594
Methyl tert-butyl ether	ND		1.00	1	06/19/2016 22:00	WG881594
Naphthalene -	620		250	50	06/23/2016 23:56	WG882820
Styrene	ND		1.00	1	06/19/2016 22:00	WG881594
1,1,2,2-Tetrachloroethane	ND		1.00	1	06/19/2016 22:00	WG881594
Tetrachloroethene	ND		1.00	1	06/19/2016 22:00	WG881594
Toluene -	71.9		5.00	1	06/19/2016 22:00	WG881594
1,2,3-Trichlorobenzene	ND		1.00	1	06/19/2016 22:00	WG881594
1,2,4-Trichlorobenzene	ND		1.00	1	06/19/2016 22:00	WG881594
1,1,1-Trichloroethane	ND		1.00	1	06/19/2016 22:00	WG881594
1,1,2-Trichloroethane	ND		1.00	1	06/19/2016 22:00	WG881594
Trichloroethene	ND UJ		1.00	1	06/19/2016 22:00	WG881594
Trichlorofluoromethane	ND		5.00	1	06/19/2016 22:00	WG881594
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	06/19/2016 22:00	WG881594
Vinyl chloride	ND		1.00	1	06/19/2016 22:00	WG881594
o-Xylene -	332		50.0	50	06/23/2016 23:56	WG882820
m&p-Xylenes -	3220		100	50	06/23/2016 23:56	WG882820
n-Butylbenzene -	4.16		1.00	1	06/19/2016 22:00	WG881594
sec-Butylbenzene -	6.29		1.00	1	06/19/2016 22:00	WG881594
tert-Butylbenzene	ND		1.00	1	06/19/2016 22:00	WG881594
1,2,4-Trimethylbenzene -	1540		50.0	50	06/23/2016 23:56	WG882820





Collected date/time: 06/14/16 10:30

L842221

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene -	197		1.00	1	06/19/2016 22:00	WG881594
n-Propylbenzene -	18.2		1.00	1	06/19/2016 22:00	WG881594
p-Isopropyltoluene -	6.71		1.00	1	06/19/2016 22:00	WG881594
(S) Toluene-d8	101		90.0-115		06/19/2016 22:00	WG881594
(S) Toluene-d8	103		90.0-115		06/23/2016 23:56	WG882820
(S) Dibromofluoromethane	98.5		79.0-121		06/23/2016 23:56	WG882820
(S) Dibromofluoromethane	112		79.0-121		06/19/2016 22:00	WG881594
(S) a,a,a-Trifluorotoluene	96.6		90.4-116		06/19/2016 22:00	WG881594
(S) a,a,a-Trifluorotoluene	99.1		90.4-116		06/23/2016 23:56	WG882820
(S) 4-Bromofluorobenzene	97.9		80.1-120		06/23/2016 23:56	WG882820
(S) 4-Bromofluorobenzene	92.6		80.1-120		06/19/2016 22:00	WG881594

7/15

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc



Method Blank (MB)

(MB) R3144495-3 06/19/16 15:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



Method Blank (MB)

(MB) R3144495-3 06/19/16 15:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methyl tert-butyl ether	U ✓		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.780	5.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	106			90.0-115
(S) Dibromofluoromethane	116			79.0-121
(S) o,a,a-Trifluorotoluene	106			90.4-116
(S) 4-Bromofluorobenzene	95.3			80.1-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3144495-1 06/19/16 13:56 • (LCSD) R3144495-2 06/19/16 14:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	197	189	157	151	28.7-175			3.94	20.9
Benzene	25.0	28.9	28.0	116 ✓	112 ✓	73.0-122			3.31	20
Bromodichloromethane	25.0	25.1	24.7	100	98.8	75.5-121			1.55	20
Bromochloromethane	25.0	26.8	25.5	107	102	78.9-123			4.95	20
Bromoform	25.0	20.5	20.6	82.0	82.5	71.5-131			0.530	20
Bromomethane	25.0	17.9	17.1	71.6	68.6	22.4-187			4.37	20
n-Butylbenzene	25.0	26.9	26.0	107	104	75.9-134			3.49	20
sec-Butylbenzene	25.0	23.6	23.1	94.5	92.4	80.6-126			2.18	20
tert-Butylbenzene	25.0	22.5	21.5	90.0	85.9	79.3-127			4.60	20
Carbon disulfide	25.0	21.3	20.3	85.3	81.1	53.0-134			5.08	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3144495-1 06/19/16 13:56 • (LCSD) R3144495-2 06/19/16 14:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	25.0	26.9	25.7	108	103	70.9-129			4.44	20
Chlorobenzene	25.0	21.9	21.7	87.5	87.0	79.7-122			0.560	20
Chlorodibromomethane	25.0	22.0	21.3	88.2	85.3	78.2-124			3.33	20
Chloroethane	25.0	19.9	19.1	79.5	76.3	41.2-153			4.18	20
Chloroform	25.0	28.7	27.6	115	111	73.2-125			3.60	20
Chloromethane	25.0	26.5	25.1	106	100	55.8-134			5.37	20
1,2-Dibromo-3-Chloropropane	25.0	25.4	24.2	102	96.7	64.8-131			5.12	20
1,2-Dibromoethane	25.0	21.6	21.8	86.5	87.4	79.8-122			1.06	20
1,2-Dichlorobenzene	25.0	24.5	23.6	97.9	94.4	84.7-118			3.62	20
1,3-Dichlorobenzene	25.0	19.4	19.5	77.6	78.0	77.6-127			0.440	20
1,4-Dichlorobenzene	25.0	22.3	22.0	89.0	88.1	82.2-114			0.980	20
Dichlorodifluoromethane	25.0	22.8	22.1	91.1	88.5	56.0-134			2.90	20
1,1-Dichloroethane	25.0	30.4	29.6	122	118	71.7-127			2.79	20
1,2-Dichloroethane	25.0	30.0	28.9	120	116	79.8-122			3.60	20
1,1-Dichloroethene	25.0	22.9	21.9	91.8	87.5	59.9-137			4.73	20
cis-1,2-Dichloroethene	25.0	28.6	27.8	114	111	77.3-122			2.91	20
trans-1,2-Dichloroethene	25.0	27.8	26.5	111	106	72.6-125			4.94	20
1,2-Dichloropropane	25.0	27.8	27.2	111	109	77.4-125			2.27	20
cis-1,3-Dichloropropene	25.0	25.4	24.7	102	98.8	77.7-124			2.76	20
trans-1,3-Dichloropropene	25.0	23.5	24.5	94.0	98.0	73.5-127			4.17	20
Ethylbenzene	25.0	22.7	22.5	90.6	90.1	80.9-121			0.610	20
2-Hexanone	125	153	161	122	129	59.4-151			5.17	20
Isopropylbenzene	25.0	24.1	23.3	96.6	93.3	81.6-124			3.43	20
p-Isopropyltoluene	25.0	22.6	22.3	90.4	89.1	77.6-129			1.37	20
2-Butanone (MEK)	125	180	174	144	139	46.4-155			3.29	20
Methylene Chloride	25.0	26.7	25.7	107	103	69.5-120			3.98	20
4-Methyl-2-pentanone (MIBK)	125	144	145	115	116	63.3-138			0.640	20
Methyl tert-butyl ether	25.0	29.7	28.6	119	114	70.1-125			3.95	20
Naphthalene	25.0	25.8	24.8	103	99.1	69.7-134			4.20	20
n-Propylbenzene	25.0	23.0	22.7	91.9	90.7	81.9-122			1.29	20
Styrene	25.0	23.1	23.3	92.5	93.3	79.9-124			0.850	20
1,1,2,2-Tetrachloroethane	25.0	22.7	22.2	90.8	88.7	79.3-123			2.24	20
Tetrachloroethene	25.0	20.0	20.0	80.0	79.9	73.5-130			0.170	20
Toluene	25.0	24.1	24.2	96.5	96.6	77.9-116			0.120	20
1,1,2-Trichlorotrifluoroethane	25.0	23.5	22.5	94.1	90.0	62.0-141			4.49	20
1,2,3-Trichlorobenzene	25.0	24.7	23.5	98.9	93.9	75.7-134			5.18	20
1,2,4-Trichlorobenzene	25.0	23.1	22.7	92.2	90.7	76.1-136			1.66	20
1,1,1-Trichloroethane	25.0	27.6	26.5	110	106	71.1-129			4.06	20
1,1,2-Trichloroethane	25.0	22.1	21.9	88.2	87.4	81.6-120			0.890	20
Trichloroethene	25.0	24.5	24.5	98.1	97.9	79.5-121			0.280	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3144495-1 06/19/16 13:56 • (LCSD) R3144495-2 06/19/16 14:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Trichlorofluoromethane	25.0	21.0	20.2	83.8 ✓	80.8 ✓	49.1-157			3.65	20
1,2,4-Trimethylbenzene	25.0	23.0	22.7	92.0	90.9	79.0-122			1.28	20
1,3,5-Trimethylbenzene	25.0	22.9	22.3	91.5	89.3	81.0-123			2.44	20
Vinyl chloride	25.0	25.4	24.7	101	98.8	61.5-134			2.69	20
o-Xylene	25.0	23.4	22.6	93.7	90.3	79.1-123			3.69	20
m&p-Xylenes	50.0	45.5	45.3	91.1	90.7	78.5-122			0.450	20
(S) Toluene-d8				104	107	90.0-115				
(S) Dibromofluoromethane				117	115	79.0-121				
(S) o,a,a-Trifluorotoluene				104	106	90.4-116				
(S) 4-Bromofluorobenzene				92.8	96.9	80.1-120				

L842228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

non-program sample

(OS) L842228-01 06/19/16 22:23 • (MS) R3144495-4 06/19/16 23:30 • (MSD) R3144495-5 06/19/16 23:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	ND ✓	116	133	81.1	94.5	1	25.0-156			13.5	21.5
Benzene	25.0	ND	26.1	28.8	104 ✓	115 ✓	1	58.6-133			9.80	20
Bromodichloromethane	25.0	ND	23.8	26.3	95.2	105	1	69.2-127			10.1	20
Bromochloromethane	25.0	ND	24.2	27.3	97.0	109	1	74.4-128			11.7	20
Bromoform	25.0	ND	20.8	21.0	83.2	84.1	1	66.3-140			1.13	20
Bromomethane	25.0	ND	14.9	18.0	59.4	71.9	1	16.6-183			19.0	20.5
n-Butylbenzene	25.0	ND	23.5	27.2	93.9	109	1	64.8-145			14.7	20
sec-Butylbenzene	25.0	ND	21.1	23.4	84.3	93.7	1	66.8-139			10.6	20
tert-Butylbenzene	25.0	ND	20.7	22.7	83.0	91.0	1	67.1-138			9.25	20
Carbon disulfide	25.0	ND	15.5	18.1	60.8	71.1	1	34.9-138			15.5	20
Carbon tetrachloride	25.0	ND	23.5	27.3	94.2	109	1	60.6-139			14.6	20
Chlorobenzene	25.0	ND	20.9	22.0	83.7 ✓	88.1 ✓	1	70.1-130			5.07	20
Chlorodibromomethane	25.0	ND	22.2	22.4	88.8	89.7	1	71.6-132			1.04	20
Chloroethane	25.0	ND	17.8	20.6	71.2	82.4	1	33.3-155			14.5	20
Chloroform	25.0	ND	26.1	29.4	104	118	1	66.1-133			11.9	20
Chloromethane	25.0	ND	22.9	26.1	91.5	105	1	40.7-139			13.3	20
1,2-Dibromo-3-Chloropropane	25.0	ND	23.0	26.8	92.0	107	1	63.9-142			15.1	20.2
1,2-Dibromoethane	25.0	ND	22.1	22.2	88.4	89.0	1	73.8-131			0.690	20
1,2-Dichlorobenzene	25.0	ND	21.7	24.9	86.9	99.5	1	77.4-127			13.5	20
1,3-Dichlorobenzene	25.0	ND	18.7	19.7	74.7	78.7	1	67.9-136			5.24	20
1,4-Dichlorobenzene	25.0	ND	20.8	22.9	83.1	91.5	1	74.4-123			9.65	20
Dichlorodifluoromethane	25.0	ND	21.8	25.5	87.3	102	1	42.2-146			15.6	20
1,1-Dichloroethane	25.0	ND	27.1	31.4	108	125	1	64.0-134			14.6	20



L842228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L842228-01 06/19/16 22:23 • (MS) R3144495-4 06/19/16 23:30 • (MSD) R3144495-5 06/19/16 23:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	25.0	ND	28.5	30.9	114	123	1	60.7-132			8.07	20
1,1-Dichloroethene	25.0	ND	19.9	22.5	79.4 ✓	89.9 ✓	1	48.8-144			12.3	20
cis-1,2-Dichloroethene	25.0	6.00	30.2	34.8	96.9	115	1	60.6-136			14.2	20
trans-1,2-Dichloroethene	25.0	ND	23.7	27.4	94.7	110	1	61.0-132			14.5	20
1,2-Dichloropropane	25.0	ND	25.3	28.1	101	112	1	69.7-130			10.5	20
cis-1,3-Dichloropropene	25.0	ND	24.4	25.0	97.4	100	1	71.1-129			2.63	20
trans-1,3-Dichloropropene	25.0	ND	24.5	24.3	97.9	97.4	1	66.3-136			0.580	20
Ethylbenzene	25.0	ND	20.6	22.4	82.5	89.8	1	62.7-136			8.45	20
2-Hexanone	125	ND	139	137	112	110	1	59.4-154			1.48	20.1
Isopropylbenzene	25.0	ND	21.0	23.6	83.9	94.4	1	67.4-136			11.9	20
p-Isopropyltoluene	25.0	ND	21.0	23.1	83.9	92.5	1	62.8-143			9.73	20
2-Butanone (MEK)	125	ND	147	147	117	118	1	45.0-156			0.530	20.8
Methylene Chloride	25.0	ND	22.8	26.7	91.3	107	1	61.5-125			15.6	20
4-Methyl-2-pentanone (MIBK)	125	ND	145	158	116	126	1	60.7-150			8.43	20
Methyl tert-butyl ether	25.0	ND	26.7	30.8	107	123	1	61.4-136			14.5	20
Naphthalene	25.0	ND	22.5	26.7	73.6	90.4	1	61.8-143			17.0	20
n-Propylbenzene	25.0	ND	21.3	22.9	85.3	91.8	1	63.2-139			7.32	20
Styrene	25.0	ND	22.5	23.3	90.1	93.4	1	68.2-133			3.51	20
1,1,2,2-Tetrachloroethane	25.0	ND	22.2	23.9	89.0	95.6	1	64.9-145			7.14	20
Tetrachloroethene	25.0	40.3	49.6	52.6	37.0	49.2	1	57.4-141	J6	J6	5.95	20
Toluene	25.0	ND	22.1	23.9	88.4 ✓	95.7 ✓	1	67.8-124			7.99	20
1,1,2-Trichlorotrifluoroethane	25.0	ND	20.6	24.2	82.5	96.7	1	53.7-150			15.8	20
1,2,3-Trichlorobenzene	25.0	ND	20.9	25.0	83.7	99.9	1	65.7-143			17.7	20
1,2,4-Trichlorobenzene	25.0	ND	20.0	23.7	79.9	94.9	1	67.0-146			17.2	20
1,1,1-Trichloroethane	25.0	ND	23.5	28.1	94.1	112	1	62.8-138			17.6	20
1,1,2-Trichloroethane	25.0	ND	22.0	22.9	88.0	91.6	1	74.1-130			3.99	20
Trichloroethene	25.0	4.53	25.2	27.9	82.6 ✓	93.4 ✓	1	48.9-148			10.1	20
Trichlorofluoromethane	25.0	ND	18.4	21.6	73.6	86.3	1	39.9-165			15.9	20
1,2,4-Trimethylbenzene	25.0	ND	21.3	23.6	81.3	90.6	1	60.5-137			10.3	20
1,3,5-Trimethylbenzene	25.0	ND	20.5	22.8	81.9	91.2	1	67.9-134			10.7	20
Vinyl chloride	25.0	ND	22.8	26.4	91.1	105	1	44.3-143			14.6	20
o-Xylene	25.0	ND	20.8	23.3	83.3	93.3	1	67.1-133			11.3	20
m&p-Xylenes	50.0	ND	42.2	44.2	82.1	86.0	1	64.1-133			4.57	20
(S) Toluene-d8					105	104		90.0-115				
(S) Dibromofluoromethane					115	118		79.0-121				
(S) a,a,a-Trifluorotoluene					101	104		90.4-116				
(S) 4-Bromofluorobenzene					102	95.1		80.1-120				

WG882820

Volatile Organic Compounds (GC/MS) by Method 8260C

QUALITY CONTROL SUMMARY

L842221-02

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3145577-3 06/23/16 19:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Naphthalene	U		1.00	5.00
1,2,4-Trimethylbenzene	U		0.373	1.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	102			90.0-115
(S) Dibromofluoromethane	100			79.0-121
(S) a,a,a-Trifluorotoluene	97.8			90.4-116
(S) 4-Bromofluorobenzene	98.6			80.1-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3145577-1 06/23/16 18:20 • (LCSD) R3145577-2 06/23/16 18:40

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	25.5	27.1	102	109	73.0-122			6.07	20
Ethylbenzene	25.0	26.7	28.2	107	113	80.9-121			5.28	20
Naphthalene	25.0	25.6	28.1	102	112	69.7-134			9.44	20
1,2,4-Trimethylbenzene	25.0	26.9	29.3	108	117	79.0-122			8.57	20
o-Xylene	25.0	26.0	27.5	104	110	79.1-123			5.48	20
m&p-Xylenes	50.0	52.9	56.3	106	113	78.5-122			6.26	20
(S) Toluene-d8				102	104	90.0-115				
(S) Dibromofluoromethane				101	102	79.0-121				
(S) a,a,a-Trifluorotoluene				97.8	98.9	90.4-116				
(S) 4-Bromofluorobenzene				98.6	99.8	80.1-120				

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260C

Project No: 209395

Project: Dorschel PRR 3865/3875 WHR 6/2016

Collection Date: 6/14/2016

Analysis Date: 6/19/2016

Instrument ID: VOCMS4

Sample Numbers: L842221-01, -02

Matrix: Water - mg/L

EPA ID: TN00003

Analytic Batch: WG881594

Analyst: 712

Method Blank Summary

Instrument	Client Sample ID	Lab Sample ID	File Name	Analysis Date	Analysis Time
VOCMS4	LCS WG881594	LCS WG881594	0619_04A.D	6/19/2016	1:56 PM
VOCMS4	LCSD WG881594	LCSD WG881594	0619_05A.D	6/19/2016	2:18 PM
VOCMS4	Blank WG881594	Blank WG881594	0619_09A.D	6/19/2016	3:48 PM
VOCMS4	MW-3R	L842221-01	0619_22A.D	6/19/2016	9:38 PM
VOCMS4	MW-7	L842221-02	0619_23A.D	6/19/2016	10:00 PM
VOCMS4	MS WG881594	MS WG881594	0619_27A.D	6/19/2016	11:30 PM
VOCMS4	MSD WG881594	MSD WG881594	0619_28A.D	6/19/2016	11:53 PM

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260C		
Project No:	209395	Matrix:	Water - mg/L
Project:	Dorschel PRR 3865/3875 WHR 6/2016	EPA ID:	TN00003
Collection Date:	6/14/2016	Analytic Batch:	WG882820
Analysis Date:	6/23/2016	Analyst:	074
Instrument ID:	VOCMS36		
Sample Numbers:	L842221-02		

Method Blank Summary

Instrument	Client Sample ID	Lab Sample ID	File Name	Analysis Date	Analysis Time
VOCMS36	LCS WG882820	LCS WG882820	0623_04.D	6/23/2016	6:20 PM
VOCMS36	LCSD WG882820	LCSD WG882820	0623_05.D	6/23/2016	6:40 PM
VOCMS36	Blank WG882820	Blank WG882820	0623_08.D	6/23/2016	7:39 PM
VOCMS36	MW-7	L842221-02	0623_16.D	6/23/2016	11:56 PM

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260C		
Project No:	209395	Matrix:	Water - mg/L
Project:	Dorschel PRR 3865/3875 WHR 6/2016	EPA ID:	TN00003
Collection Date:	6/14/2016	Analytic Batch:	WG881594
Analysis Date:	6/19/2016	Analyst:	712
Instrument ID:	VOCMS4		
Sample Numbers:	L842221-01, -02		

Internal Standard Response and Retention Time Summary

File ID: 0619_02A
Analyzed: 06/19/16 124600

	IS1		IS2		IS3		IS4	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	547035	4.19	927403	4.52	154095	5.66	422115	8.04
Upper Limit	1090000	4.69	1850000	5.02	308000	6.16	844000	8.54
Lower Limit	274000	3.69	464000	4.02	77000	5.16	211000	7.54
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L842221-01	452314	4.19 ✓	749119	4.52 ✓	127319	5.66 ✓	338162	8.04 ✓
L842221-02	566903	4.19	1043748	4.52	163686	5.66	432805	8.04
MSD WG881594	472776	4.19	793669	4.52	136710	5.66	363567	8.04
MS WG881594	547683	4.19	939202	4.52	161188	5.66	447454	8.04
LCSD WG881594	537242	4.19	872773	4.52	150291	5.66	405067	8.04
LCS WG881594	519012	4.19	867565	4.52	145364	5.66	382580	8.04
BLANK WG881594	488969	4.19	803373	4.52	137306	5.66	358814	8.04

Legend:

IS1 -- PENTAFLUOROBENZENE
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS4 -- 1,4-DICHLOROBENZENE-D4

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260C		
Project No:	209395	Matrix:	Water - mg/L
Project:	Dorschel PRR 3865/3875 WHR 6/2016	EPA ID:	TN00003
Collection Date:	6/14/2016	Analytic Batch:	WG882820
Analysis Date:	6/23/2016	Analyst:	074
Instrument ID:	VOCMS36		
Sample Numbers:	L842221-02		

Internal Standard Response and Retention Time Summary

File ID: 0623_02
Analyzed: 06/23/16 150700

	IS1		IS2		IS4	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	378211	4.09	734568	4.42	267746	8.04
Upper Limit	756000	4.59	1470000	4.92	535000	8.54
Lower Limit	189000	3.59	367000	3.92	134000	7.54
Sample ID	Response	RT	Response	RT	Response	RT
LCSD WG882820	350029	4.10	681801	4.43	252812	8.05
LCS WG882820	359074	4.10	701716	4.43	257336	8.05
BLANK WG882820	358849	4.10	700337	4.42	259642	8.04

Legend:

IS1 -- PENTAFLUOROBENZENE
IS2 -- 1,4-DIFLUOROBENZENE
IS4 -- 1,4-DICHLOROBENZENE-D4

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260C		
Project No:	209395	Matrix:	Water - mg/L
Project:	Dorschel PRR 3865/3875 WHR 6/2016	EPA ID:	TN00003
Collection Date:	6/14/2016	Analytic Batch:	WG882820
Analysis Date:	6/23/2016	Analyst:	074
Instrument ID:	VOCMS36		
Sample Numbers:	L842221-02		

Internal Standard Response and Retention Time Summary

File ID: 0623_10

Analyzed: 06/23/16 204600

	IS1		IS2		IS4	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	354381	4.10	687620	4.43	246028	8.04
Upper Limit	756000	4.60	1470000	4.93	535000	8.54
Lower Limit	189000	3.60	367000	3.93	134000	7.54
Sample ID	Response	RT	Response	RT	Response	RT
L842221-02	349981	✓ 4.09	674953	✓ 4.42	240851	✓ 8.04

Legend:

IS1 -- PENTAFLUOROBENZENE

IS2 -- 1,4-DIFLUOROBENZENE

IS4 -- 1,4-DICHLOROBENZENE-D4

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260C

Project No: 209395

Project: Dorschel PRR 3865/3875 WHR 6/2016

Collection Date: 6/14/2016

Analysis Date: 6/19/2016

Instrument ID: VOCMS4

Sample Numbers: L842221-01, -02

Matrix: Water - mg/L

EPA ID: TN00003

Analytic Batch: WG881594

Analyst: 712

Surrogate Summary

			BFB		TFT		DFM		TD8	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L842221-01	VOCMS4	0619_22A	0.0399	99.9 ✓	0.0416	104 ✓	0.0496	124 J1	0.0424	106 ✓
L842221-02	VOCMS4	0619_23A	0.0370	92.6	0.0386	96.6	0.0450	112	0.0405	101
LCS WG881594	VOCMS4	0619_04A	0.0371	92.8	0.0415	104	0.0467	117	0.0416	104
LCSD WG881594	VOCMS4	0619_05A	0.0388	96.9	0.0422	106	0.0461	115	0.0427	107
BLANK WG881594	VOCMS4	0619_09A	0.0381	95.3	0.0423	106	0.0464	116	0.0425	106
MS WG881594	VOCMS4	0619_27A	0.0407	102	0.0403	101	0.0460	115	0.0420	105
MSD WG881594	VOCMS4	0619_28A	0.0380	95.1	0.0418	104	0.0472	118	0.0416	104

BFB --4-BROMOFLUOROBENZENE

TFT --A,A,A-TRIFLUOROTOLUENE

DFM --DIBROMOFLUOROMETHANE

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 80.1 - 120

True Value: 0.04 ppm Limits: 90.4 - 116

True Value: 0.04 ppm Limits: 79 - 121

True Value: 0.04 ppm Limits: 90 - 115

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test:	Volatile Organic Compounds by Method 8260C		
Project No:	209395	Matrix:	Water - mg/L
Project:	Dorschel PRR 3865/3875 WHR 6/2016	EPA ID:	TN00003
Collection Date:	6/14/2016	Analytic Batch:	WG882820
Analysis Date:	6/23/2016	Analyst:	074
Instrument ID:	VOCMS36		
Sample Numbers:	L842221-02		

Surrogate Summary

			BFB		TFT		DFM		TD8	
Laboratory	Sample ID	Instrument File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L842221-02	VOCMS36 0623_16	0.0392	97.9 ✓	0.0397	99.1 ✓	0.0394	98.5 ✓	0.0410	103 ✓
	LCS WG882820	VOCMS36 0623_04	0.0394	98.6	0.0391	97.8	0.0404	101	0.0409	102
	LCSD WG882820	VOCMS36 0623_05	0.0399	99.8	0.0396	98.9	0.0409	102	0.0414	104
	BLANK WG882820	VOCMS36 0623_08	0.0394	98.6	0.0391	97.8	0.0400	100	0.0408	102

BFB --4-BROMOFLUOROBENZENE

TFT --A,A,A-TRIFLUOROTOLUENE

DFM --DIBROMOFLUOROMETHANE

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 80.1 - 120

True Value: 0.04 ppm Limits: 90.4 - 116

True Value: 0.04 ppm Limits: 79 - 121

True Value: 0.04 ppm Limits: 90 - 115



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260C
Project No: 209395
Project: Dorschel PRR 3865/3875 WHR 6/2016 EPA ID: TN00003
Collection Date: 6/14/2016
Instrument ID: VOCMS4

Instrument Performance Summary

FileID: 0619_02A.D

Date: 6/19/2016

Time: 12:46 PM

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of mass 95	17.2 ✓
75	30 - 60% of mass 95	47.3
95	100 - 100% of mass 95	100
96	5 - 9% of mass 95	6.6
173	0 - 2% of mass 174	0.3
174	50 - 150% of mass 95	69.6
175	5 - 9% of mass 174	7.2
176	95 - 101% of mass 174	96.8
177	5 - 9% of mass 176	6.9

This Check applies to the following samples and quality control samples

Client Sample ID	Laboratory Sample ID	Lab Filename	Date Analyzed	Time Analyzed
LCS WG881594	LCS WG881594	0619_04A.D	6/19/2016	1:56 PM
LCSD WG881594	LCSD WG881594	0619_05A.D	6/19/2016	2:18 PM
Blank WG881594	Blank WG881594	0619_09A.D	6/19/2016	3:48 PM
MW-3R	L842221-01	0619_22A.D	6/19/2016	9:38 PM
MW-7	L842221-02	0619_23A.D	6/19/2016	10:00 PM
MS WG881594	MS WG881594	0619_27A.D	6/19/2016	11:30 PM
MSD WG881594	MSD WG881594	0619_28A.D	6/19/2016	11:53 PM ✓

Quality Control Summary

SDG: L842221

LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260C
Project No: 209395
Project: Dorschel PRR 3865/3875 WHR 6/2016 EPA ID: TN00003
Collection Date: 6/14/2016
Instrument ID: VOCMS36

Instrument Performance Summary

FileID: 0623_02.D

Date: 6/23/2016

Time: 3:07 PM

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of mass 95	15 ✓
75	30 - 60% of mass 95	46.1
95	100 - 100% of mass 95	100
96	5 - 9% of mass 95	6.8
173	0 - 2% of mass 174	1.2
174	50 - 150% of mass 95	59.5
175	5 - 9% of mass 174	7.9
176	95 - 101% of mass 174	98.3
177	5 - 9% of mass 176	6.8

This Check applies to the following samples and quality control samples

Client Sample ID	Laboratory Sample ID	Lab Filename	Date Analyzed	Time Analyzed
LCS WG882820	LCS WG882820	0623_04.D	6/23/2016	6:20 PM
LCSD WG882820	LCSD WG882820	0623_05.D	6/23/2016	6:40 PM
Blank WG882820	Blank WG882820	0623_08.D	6/23/2016	7:39 PM ✓

Quality Control Summary

SDG: L842221
LaBella Associates, P.C.

Test: Volatile Organic Compounds by Method 8260C
Project No: 209395
Project: Dorschel PRR 3865/3875 WHR 6/2016 EPA ID: TN00003
Collection Date: 6/14/2016
Instrument ID: VOCMS36

Instrument Performance Summary

FileID: 0623_10.D

Date: 6/23/2016

Time: 8:46 PM

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of mass 95	15.4 ✓
75	30 - 60% of mass 95	46.7
95	100 - 100% of mass 95	100
96	5 - 9% of mass 95	7
173	0 - 2% of mass 174	1.2
174	50 - 150% of mass 95	60.1
175	5 - 9% of mass 174	8.2
176	95 - 101% of mass 174	97
177	5 - 9% of mass 176	6.9

This Check applies to the following samples and quality control samples

Client Sample ID	Laboratory Sample ID	Lab Filename	Date Analyzed	Time Analyzed
MW-7	L842221-02	0623_16.D	6/23/2016	11:56 PM ✓

APPENDIX C

October 6, 2015 Site Inspection Forms and Photograph

ABELLA

Associates, P.C.

300 State Street
Rochester, New York 14614
Phone: (585) 454-6110
Fax: (585) 454-3066

SITE-WIDE INSPECTION FORM

Project Name: NYSDEC BCP Site No. C828134

Location: 3865 & 3875 West Henrietta Road, Rochester, New York

Project No.: 209395

Inspected By: *N. WZINUA*Date of Inspection: *10/6/15*Weather Conditions: *60°F, Overcast*

INSPECTION FINDINGS

SSDS VENT FAN & GENERAL LOCATION	FAN OPERATING PROPERLY (YES/NO) and MANOMETER READING (H ₂ O"):	PIPING and LABELLING IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
3875 W. Henrietta Rd.	Fan Operation: Yes North -0.760 -0.443 South -0.304 -0.255	Yes	None
BIO-CELL	BIO-CELL MONITORING (YES/NO)	BIOCELL IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
N/A	N/A	N/A	NONE
GENERAL SITE CONDITIONS	CURRENT USE OF SITE (COMMERCIAL/ RESIDENTIAL/ETC.)	SITE RECORDS UP TO DATE (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
Good Condition	Commercial	Yes	None.

LABELLA

Associates, P.C.

300 State Street
Rochester, New York 14614
Phone: (585) 454-6110
Fax: (585) 454-3066

SITE-WIDE INSPECTION FORM

Project Name: NYSDEC BCP Site No. C828134

Location: 3865 & 3875 West Henrietta Road, Rochester, New York

Project No.: 209395

Inspected By: N. INZINNA

Date of Inspection: 10/6/15

Weather Conditions: 60°F, Overcast

INSPECTION FINDINGS

SSDS VENT FAN & GENERAL LOCATION	FAN OPERATING PROPERLY (YES/NO) and MANOMETER READING (H ₂ O"):	PIPING and LABELLING IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
3865 W. Henrietta Rd. South Bathroom, East Wall	Yes 2.5" H ₂ O	Yes	None
BIO-CELL	BIO-CELL MONITORING (YES/NO)	BIOCELL IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
N/A	N/A	N/A	NONE
GENERAL SITE CONDITIONS	CURRENT USE OF SITE (COMMERCIAL/ RESIDENTIAL/ETC.)	SITE RECORDS UP TO DATE (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
Good Condition	Commercial	Yes	None

When system vacuum pressure, or house pressure provides an indication of radon entry is operating.

Should be used for Radon at entry or as required or indicated by local agencies.

When columns are at zero

→
Pressure changes substantially

TESTED TECH

SALE #100722

201637-7430

Radon Pressure

2.5"

1" WC/DIV
4
3
2
1
0

Easy Read
Dynamometer

RadonAway
Rev C

APPENDIX D

July 7, 2016 Site Inspection Form and Photograph

ABELLA

Associates, P.C.

300 State Street
 Rochester, New York 14614
 Phone: (585) 454-6110
 Fax: (585) 454-3066

SITE-WIDE INSPECTION FORM

Project Name: NYSDEC BCP Site No. C828134

Location: 3865 & 3875 West Henrietta Road, Rochester, New York

Project No.: 209395

Inspected By: N. INZIGNA

Date of Inspection: 7/7/16

Weather Conditions: 85° Partly Cloudy

INSPECTION FINDINGS

3875 ^{KRM} 3865 Building SSDS VENT FAN & GENERAL LOCATION	FAN OPERATING PROPERLY (YES/NO) and MANOMETER READING (H ₂ O"):	PIPING and LABELLING IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
7/7/16: 2 Interior Customer Area(N) Locations	N -0.593 -0.198 S -0.237 -0.187	Yes	None
Service Area(S) 3865 ^{KRM} 3875 Building SSDS VENT FAN & GENERAL LOCATION	FAN OPERATING PROPERLY (YES/NO) and MANOMETER READING (H ₂ O"):	PIPING and LABELLING IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
Interior Woman's Restroom, Behind Panel	NA	Yes	Photo Taken
GENERAL SITE CONDITIONS	CURRENT USE OF SITE (COMMERCIAL/ RESIDENTIAL/ETC.)	SITE RECORDS UP TO DATE (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
Good Condition	Commercial	Yes	None

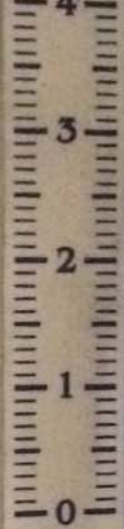
vacuum pressure,
pressure provides an
is operating.
tested for Radon at
series required or
local agencies

BOTH COLUMNS ARE AT ZERO

→
PRESSURE CHANGES SUBSTANTIALLY

CH
100722
7-7430
2.5"

.1" WC/Div



Easy Read
Dynamometer
RadonAway
Rev C

APPENDIX E





**As-Built Drawings of SSDSs at
3865 & 3875 West Henrietta Road Buildings**

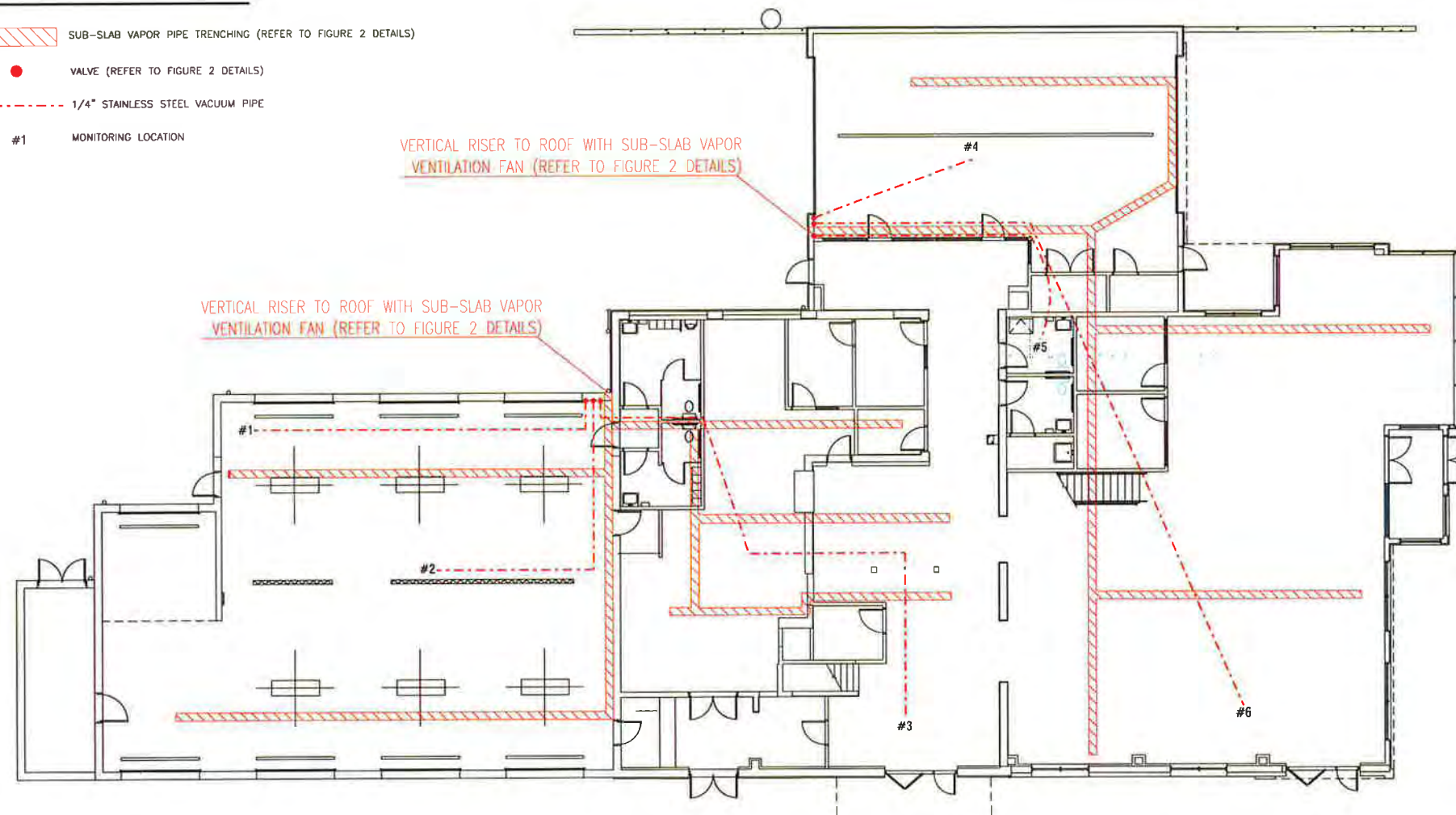
PROPOSED SUB-SLAB DEPRESSURIZATION SYSTEM

SCALE: 1"=20'



SYMBOL LEGEND

-  SUB-SLAB VAPOR PIPE TRENCHING (REFER TO FIGURE 2 DETAILS)
 VALVE (REFER TO FIGURE 2 DETAILS)
 1/4" STAINLESS STEEL VACUUM PIPE
 #1 MONITORING LOCATION



NOTE:
BASE DRAWING ADAPTED FROM TY LIN INTERNATIONAL
DRAWING TITLED "SANITARY SEWER PLUMBING PLAN"
DATED NOVEMBER 8, 2011.

[illegible]

LABELLA
Associates, P.C.

300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585) 454-3066
www.labelapc.com
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PROJECT/CLIENT

3875 West Henrietta Road
Henrietta, New York

RJ Dorschel Corp.

DRAWING TITLE

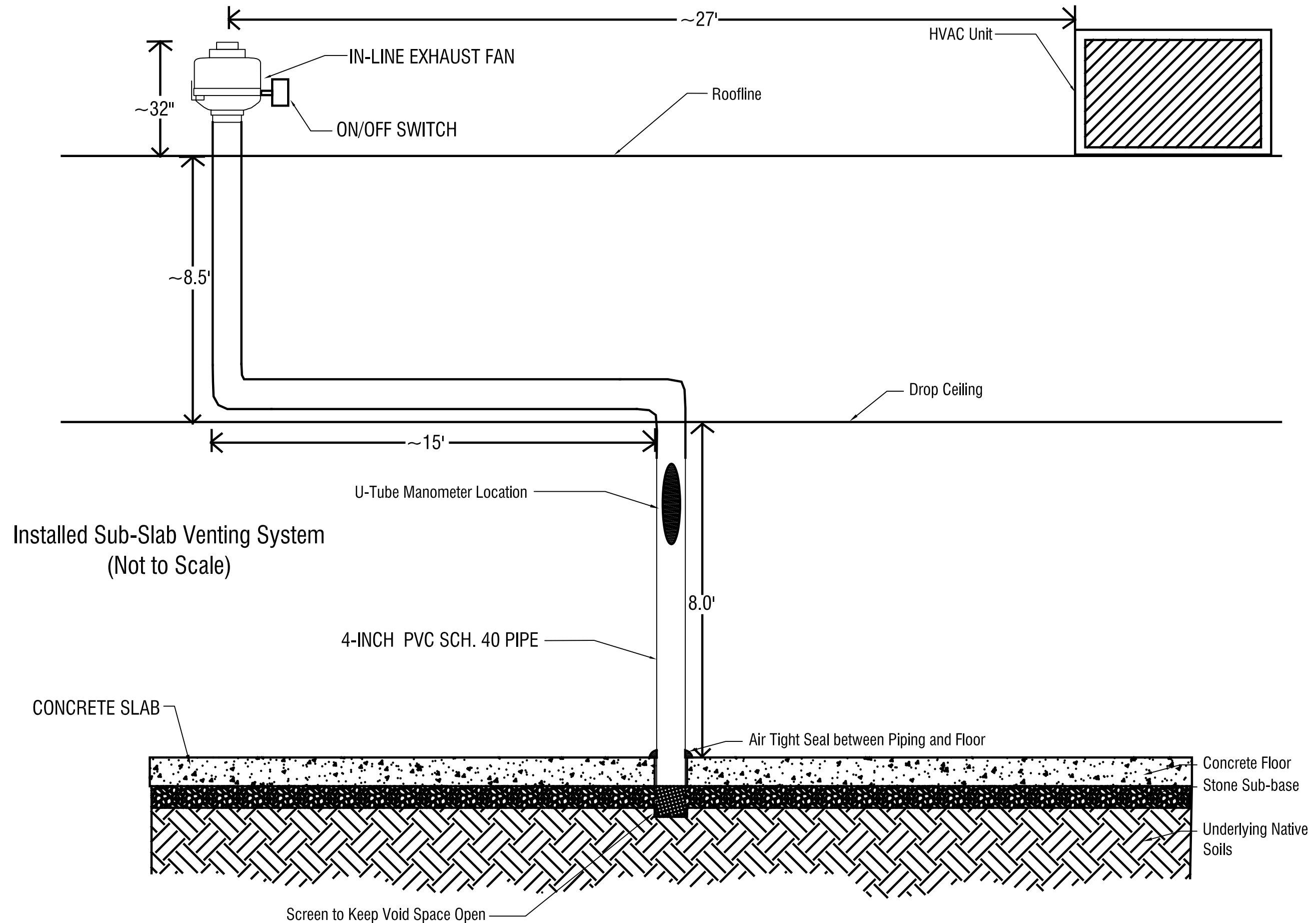
AS-BUILT PLAN FOR SUB-SLAB DEPRESSURIZATION SYSTEM

ISSUED FOR	SCALE	NO SCALE
	DRAWN BY	HMS/RCN
DATE	REVIEWED BY:	DPI
	REVIEWED BY:	###

PROJECT/DRAWING NUMBER

209395

FIG 1



300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585) 454-3066
WWW.LABELLA.PC.COM
COPYRIGHT © 2003

LABELLA
Associates, P.C.

PROJECT/CLIENT
BROWNFIELD CLEANUP PROGRAM
SITE MANAGEMENT PLAN
BCP Site # C828134
3865 WEST HENRIETTA RD
ROCHESTER, NY 14623

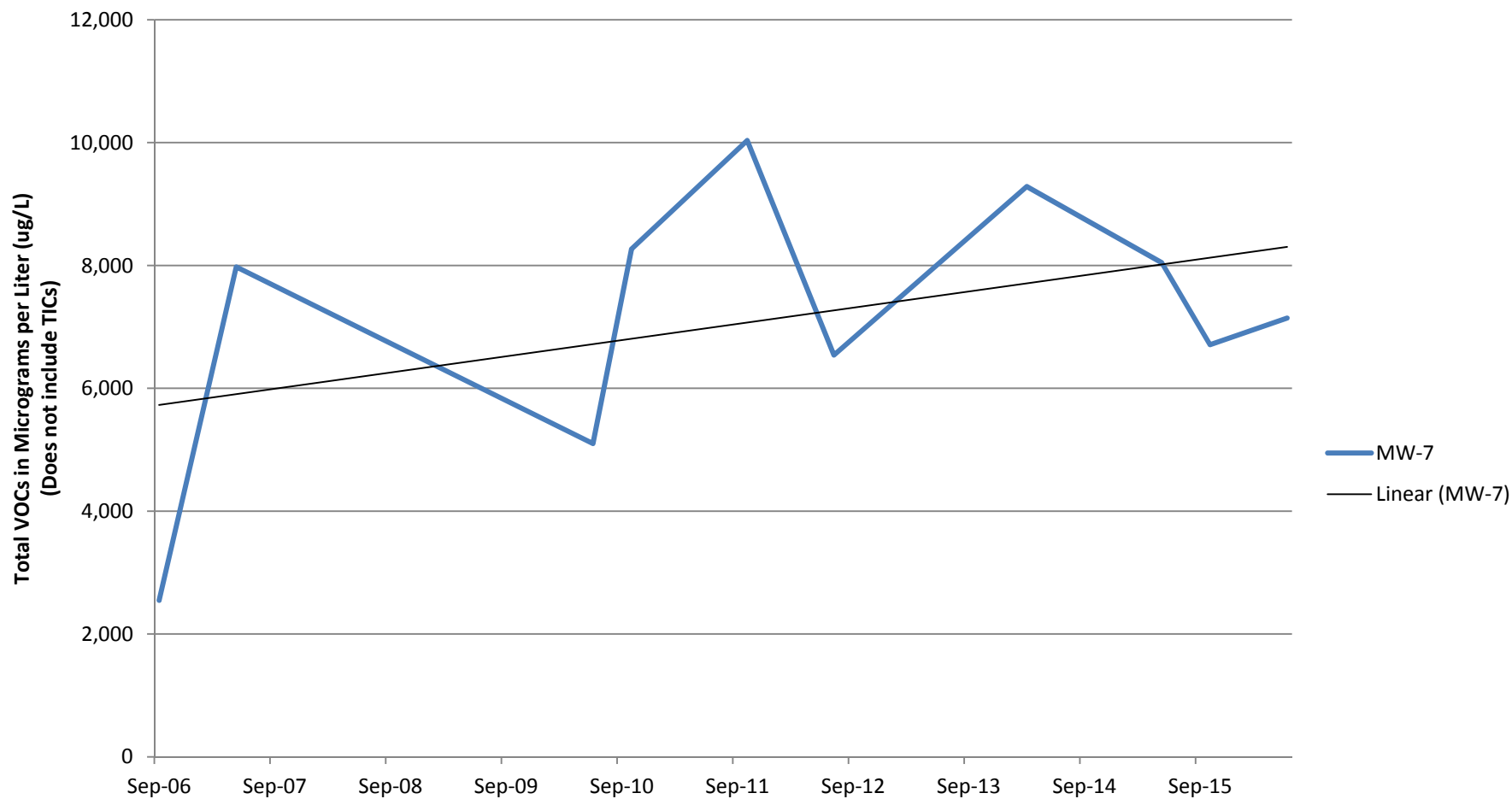
DRAWING TITLE			
SUBSLAB DEPRESSURIZATION DETAILS			
ISSUED FOR <div>DRAFT</div>	DESIGNED BY:	EPD	
	DRAWN BY:	EPD	
	REVIEWED BY:	DPW	
	AUGUST 2009		

PROJECT/DRAWING NUMBER
209395
FIGURE 9

APPENDIX F

Graphs of Total VOCs Over Time

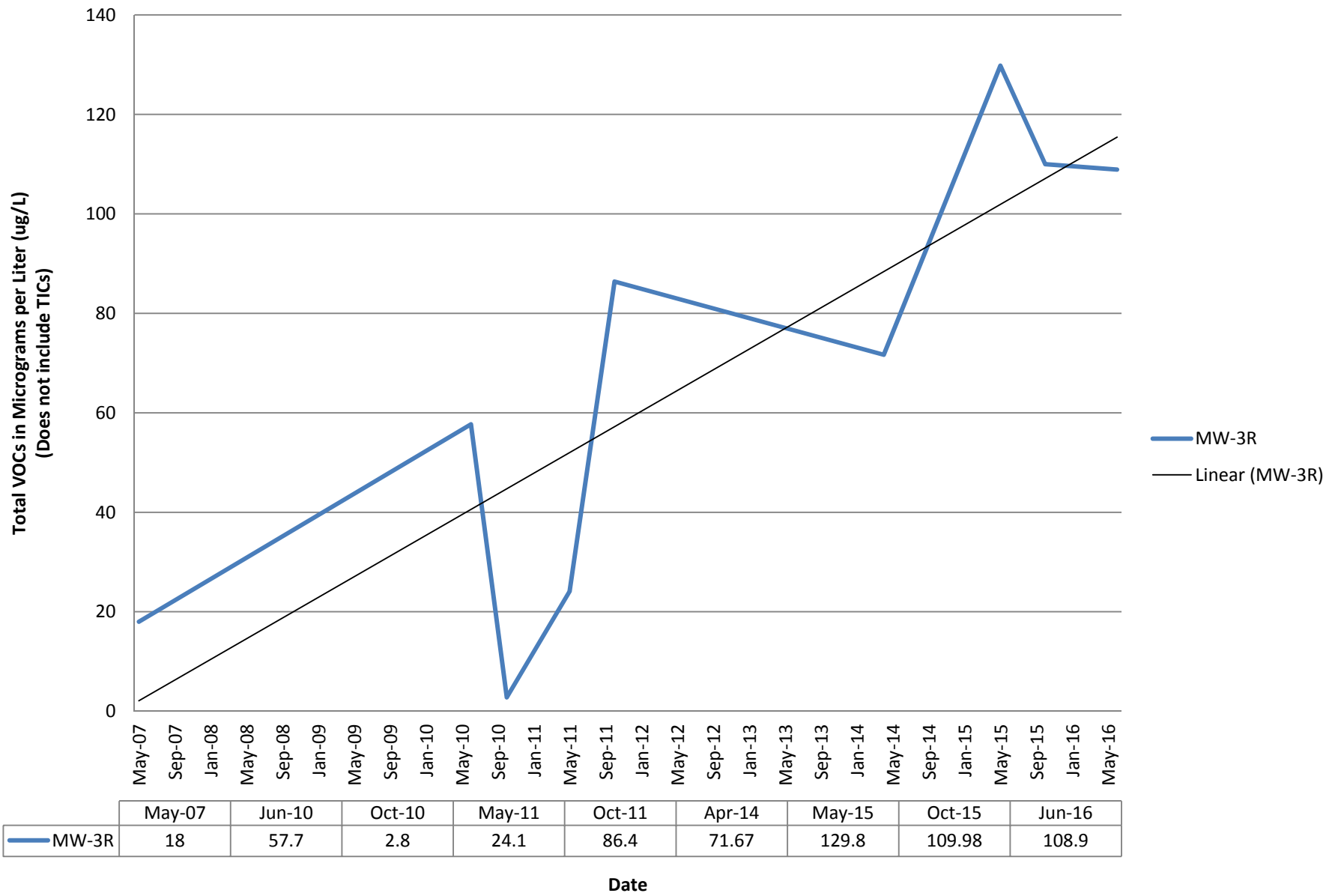
MW-7 (without outlier)



	Sep-06	May-07	Jun-10	Oct-10	Oct-11	Jul-12	Mar-14	May-15	Oct-15	Jun-16
— MW-7	2,547	7,976	5,101	8,267	10,035	6,541	9,286	8,046	6,709	7,143.26

Date

MW-3R



APPENDIX G

Institutional Controls/Engineering Controls Certification Form



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details	Box 1
Site No. C828134	
Site Name Former Steve Joy's Sunoco 3865 and 3875	
Site Address: 3865 West Henrietta Road	Zip Code: 14623
City/Town: Rochester	
County: Monroe	
Site Acreage: 2.5	
Reporting Period: August 06, 2015 to August 06, 2016	
	YES NO
1. Is the information above correct?	<input type="checkbox"/> <input checked="" type="checkbox"/>
If NO, include handwritten above or on a separate sheet.	
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/> <input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/> <input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/> <input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.	
5. Is the site currently undergoing development?	<input type="checkbox"/> <input checked="" type="checkbox"/>
Box 2	
	YES NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	<input checked="" type="checkbox"/> <input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/> <input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.	
A Corrective Measures Work Plan must be submitted along with this form to address these issues.	
_____ Signature of Owner, Remedial Party or Designated Representative	_____ Date

Box 2A

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

YES NO

☐

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C828134**Box 3****Description of Institutional Controls**

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
161.15-1-20.1	R.J. Dorschel Corp.	Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan Ground Water Use Restriction
<p>The property may only be used for commercial or industrial use, provided that the long-term Engineering and Institutional Controls included in this SMP are employed.</p> <ul style="list-style-type: none"> • The property may not be used for a higher level of use (e.g., unrestricted, residential, etc.) use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC; • All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP; • The existing sub-slab depressurization system at the 3865 West Henrietta Road property will be monitored and maintained in accordance with the SMP; • The existing biocell will be monitored and maintained in accordance with the SMP; • The use of the groundwater underlying the property is prohibited without treatment restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; • Prior to occupancy of any newly constructed buildings at this site a soil vapor intrusion evaluation will be performed in accordance with the State's most recent guidance on evaluation soil vapor intrusion. Alternatively, a SSDS can be designed and installed/started prior to occupancy of any newly constructed building. The SSDS will be designed and installed in accordance with the State's most recent guidance on evaluating soil vapor intrusion and will require approval by NYSDEC and NYSDOH prior to installation; • Vegetable gardens and farming on the Site are prohibited; and • The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable. 		
161.19-1-9	R.J. Dorschel Corp.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
<p>The property may only be used for commercial or industrial use, provided that the long-term Engineering and Institutional Controls included in this SMP are employed.</p> <ul style="list-style-type: none"> • The property may not be used for a higher level of use (e.g., unrestricted, residential, etc.) use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC; • All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP; • The existing biocell will be monitored and maintained in accordance with the SMP; • The use of the groundwater underlying the property is prohibited without treatment restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; • Prior to occupancy of any newly constructed buildings at this site a soil vapor intrusion evaluation will be performed in accordance with the State's most recent guidance on evaluation soil vapor intrusion. Alternatively, a SSDS can be designed and installed/started prior to occupancy of any newly constructed building. The SSDS will be designed and installed in accordance with the State's most recent guidance on evaluating soil vapor intrusion and will require approval by NYSDEC and NYSDOH prior to installation; • A SSDS will be designed and installed/started prior to occupancy of the existing 3875 West Henrietta Road building. The SSDS will be designed and installed in accordance with the State's most recent guidance on evaluating soil vaor intrusion and will require approval by NYSDEC and NYSDOH prior to installation; 		

- Vegetable gardens and farming on the Site are prohibited; and
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Box 4

Description of Engineering Controls

Parcel

161.15-1-20.1

Engineering Control

Vapor Mitigation

161.19-1-9

Vapor Mitigation

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C828134

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ALBERT J BARONAS at 3817 WEST HENRIETTA RD
print name print business address ROCHESTER NY
am certifying as OWNER'S REP. (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

RJ DORSCHER CORP. SEC'TY
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

7.22.16
Date

RJ DORSCHER CORP.

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I DANIEL P. NOLL at LaBella Associates, DPC
print name print business address
300 STATE ST. ROCHESTER, NY

am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)

D P NOLL

Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification



Stamp
(Required for PE)

8/26/2016

Date