

**2018**

**PERIODIC REVIEW REPORT**

**FOR**

**FORMER MOBIL SERVICE STATION 99-MST**  
**979 MAIN STREET (1001 MAIN STREET)**  
**NYSDEC SITE #C915260**

**CITY OF BUFFALO, ERIE COUNTY, NEW YORK**

*Prepared by:*



**C&S ENGINEERS, INC.**  
141 ELM STREET  
BUFFALO, NEW YORK 14203

*Prepared on Behalf of:*

**CONVENTUS PARTNERS, LLC**  
**KALEIDA HEALTH**  
**KALEIDA PROPERTIES, INC.**

**JULY 2018**

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**ACRONYM LIST**

C&S	C&S ENGINEERS, INC.
BGS	BELOW GROUND SURFACE
BCP	BROWNFIELD CLEANUP PROGRAM
BCA	BROWNFIELD CLEANUP AGREEMENT
BTEX	BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE
DUSR	DATA USABILITY AND SUMMARY REPORT
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
IRM	INTERIM REMEDIAL MEASURES
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PCOC	PRIMARY CONTAMINATE OF CONCERN
PID	PHOTO-IONIZATION DETECTOR
PPM	PARTS PER MILLION
RI	REMEDIAL INVESTIGATION
SCO	SOIL CLEANUP OBJECTIVES
SMP	SITE MANAGEMENT PLAN
SVOC	SEMI-VOLATILE ORGANIC COMPOUNDS
VOC	VOLATILE ORGANIC COMPOUNDS

## EXECUTIVE SUMMARY

C&S Engineers, Inc. (C&S) has prepared this 2017 Periodic Review Report for the former Mobil Service Station 99-MST - 979 Main Street (1001 Main Street) (hereinafter referred to as the Site) located at 1001 Main Street in Buffalo, New York.

The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C915260-03-12, Site #C915260, which was executed on June 15, 2012 and last amended on August 7, 2012. A figure showing the Site location and boundaries is provided in **Figure 1** and **Figure 2**.

Remedial activities consisted of installing steel shoring around the property and removing contaminated soil and groundwater to 26 – 40 feet below ground surface. After completion of the remedial work, some contamination remained in the subsurface at this Site. A Site Management Plan (SMP) was prepared on November 28, 2014 to manage remaining groundwater contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36.

Petroleum contaminated groundwater is present within a discontinuous layer of coarse sand and gravel located between 32 and 35 feet below ground surface. This layer generally ranges from 6 inches to three feet thick, provides a preferential pathway for groundwater flow, and is confined within dense silt and fine sand present above and below the groundwater bearing zone.

During the remedial efforts, seven groundwater monitoring wells were installed prior to the installation of the two floors of underground parking. These monitoring wells were used to conduct in-situ injections by gravity feeding chemical oxidants into the groundwater bearing zone. A total of 2,480 pounds of chemical oxidant was used over three treatment events. Treatments occurred from December 2013 to June 2015. Groundwater samples following the in-situ injections show minor reductions in petroleum compounds.

In 2016, C&S conducted a limited groundwater extraction on the wells with the highest contaminant levels. Contaminated groundwater was pumped from the wells and treated with 200 pounds of activated carbon before discharging into the sanitary sewer. A total of 4,762.2 gallons of contaminated groundwater was removed. Groundwater samples collected in December 2015, January 2016 and March 2016 showed a slight reduction in petroleum compound concentrations.

All institutional and engineering controls are in compliance with the SMP. To address the continued elevated concentrations of petroleum compounds in the groundwater, C&S recommends the completion of additional treatment methods, including the implementation of a slow release chemical oxidation method.

The Institutional and Engineering Controls Certification form is provided in Appendix B.

## **1 SITE OVERVIEW**

### **1.1 Site Description**

The Site is located in the City of Buffalo County of Erie County, New York and is identified below on the Erie County Tax Map.

SBL: 100.79 – 1- 1.1

Street Number: 1001 Main Street, Buffalo

(formerly 979 Main Street)

Owner: Kaleida Properties, Inc.

SBL: 100.79-1-2.11

Street Number: 818 Ellicott Street, Buffalo

Owner: Kaleida Health

The Site is an approximately 1.72-acre area bounded by Goodrich Street to the north, High Street to the south, parking lot to the east, and Main Street to the west (see **Figure 1** and **2**).

### **1.2 Geology and Hydrogeology**

The Conventus Medical Office Building currently occupies the Site. During remedial activities, steel shoring was installed to a depth of 40 to 50 feet below grade around the Site. Across the majority of the Site, soils were excavated to 26 feet below ground surface (bgs). Two floors of underground parking were constructed underneath the Conventus building.

The Site geology begins at 26 feet bgs. Subsurface soils consist of dry to moist fine sand and silt formation extends to nearly 70 feet bgs. Below this massive sand and silt formation is a coarse sand and gravel layer that grades to a sand, gravel; and clay till formation. Underlying the overburden is a grey cherty limestone formation at approximately 90 feet bgs.

The principal groundwater bearing zone beneath the site is located within the coarse sand and gravel layer between 32 and 35 feet bgs. This layer is of variable thickness (generally 6 inches to three feet) but is horizontally discontinuous. The layer is located within the central and northeastern portions of the Site, but does not extend completely to the southern, northwestern or southeastern areas of the Site and is confined by the dense fine sands and silt above and below the groundwater bearing zone.

### **1.3 Nature and Extent of Contamination**

During the Interim Remedial Measure (IRM), grossly contaminated soil and groundwater were removed from the Site. In total, 67,458 tons of soils were sent for disposal or treatment due to gasoline contamination. The remaining contamination left on-site consists of petroleum impacted groundwater. Groundwater sampling that occurred prior to the IRM confirmed that the Primary Contaminants of Concern (PCOCs) are limited to petroleum hydrocarbons.

Groundwater flows within the coarse sand/gravel groundwater bearing zone to the northeast. Groundwater recharge from the surface has been eliminated due to the concrete floor of the parking garage, which effectively covers 100% of the Site recharge area. Additionally, below grade migration has been effectively stopped by the presence of deep sheet piling that cuts off the groundwater bearing zone from the remaining off-site formation around the majority of the Site. The lack of a vertical recharge from the surface and the horizontal containment in the groundwater bearing zone was designed to contain the remaining groundwater on-site and reduces the future contaminant loading into the surrounding off-site formation. However, a small gap in the sheet piling along the southwestern corner may provide a route for off-site contamination to impact the Site's groundwater.

### **1.4 Site History**

Contamination is related to the historic use of the property as a gas station and originally was sourced from leaking underground storage tanks located above the "Deep Excavation Area" (see **Figure 3**).

For over 40 years, the light non-aqueous phase liquid (LNAPL) filtered downward from the base of the tank to a depth of approximately 40 feet bgs. LNAPL intercepted the groundwater at approximately 32 feet bgs. The water table is present within a semi-confined coarse sand and gravel lens. This lens varies in thickness (1/2 to 3 feet) and extends to the northeast, confined laterally to the east and west. Because of low carbon in the fine sand silt and gravel formations, breakdown of benzene, toluene, ethylbenzene and xylene (BTEX) compounds was slow. This resulted in high volatile organic compounds (VOC) soil gas in the unsaturated zone below the release area and the continual loading of BTEX into the groundwater from the LNAPL. Soil Contamination (exceeding Residential Use SCOs), below the LNAPL layer was noted to extend to a depth of 35 to 40 feet bgs. This area has been identified as the Source Area for groundwater contamination.

Dissolved BTEX, once entering the groundwater bearing zone was transported via localized, preferential groundwater flow to the northeast corner of the Site (Following the location of the coarse sand/gravel lens).

To redevelop the property into a medical office building, the Applicants (BCP F..L.C. 50 High Street, Corporation, Kaleida Health, Kaleida Properties, Inc. and Conventus Partners, LLC) acting as Brownfield Cleanup Program (BCP) Volunteers, submitted a

BCP Application for the Site on November 28, 2011. The Applicants and the New York State Department of Environmental Conservation (NYSDEC) signed the Brownfield Cleanup Agreement (BCA) on June 15, 2012.

The NYSDEC approved IRM was implemented on January 2013. The following is a summary of the IRM performed at the Site:

1. Excavation of soil/fill exceeding restricted residential SCOs to 26 feet bgs;
2. Excavation of soil from the source area to 40 feet bgs;
3. Removal of LNAPL and contaminated groundwater;
4. Backfilling with clean fill and construction of concrete floor;
5. Backfilling the source area with flowable fill; and
6. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site.

The removal of soils in the source area (“Area of Deep Excavation” in **Figure 3**) also included the removal of the groundwater bearing zone. During soil removal, 1997 tons of groundwater and LNAPL was removed from the excavation and properly disposed off-site. The groundwater bearing zone within the source area was replaced with flowable fill, sealing this area off from the adjacent groundwater bearing zone beneath the Site.

Remedial activities were completed at the Site in October 2013. Implementation of the IRM, including source removal, was effective in removing any remaining free product grossly contaminated soils and the groundwater containing the highest dissolved BTEX. However, residual groundwater contamination remains on-site.

Following mass excavation activities, seven new wells were installed on-site.

**Table 1-1: Post-Remediation Wells**

Well ID	Diameter
BCP-MW-1	2”
BCP-MW-2	8”
BCP-MW-3	8”
BCP-MW-4	2”
BCP-MW-5	2”
BCP-MW-6	8”
BCP-MW-7	2”

Note that one well (BCP-MW-2) was installed adjacent to the flowable fill within the Source Area. This well did not produce water. A second well, BCP-MW-6, was installed along the western side of the deep excavation, along the tiered excavation area and did

intercept the portion of the groundwater bearing zone remaining along the shoring. This well did produce water for sampling. All other wells were installed through native materials and the gravel water bearing layer. All wells were installed to an approximate depth of 43 feet below surrounding grade (approximately 16 feet below basement floor elevation).

The monitoring well locations were located in areas of previously identified groundwater contamination and to the south of the plume to confirm that contamination had not moved off-site to the south.

BCP-MW-2 was installed adjacent to the source area that was backfilled with flowable fill. Since its installation, this well has been dry. NYSDEC requested the well be modified to evaluate if groundwater underneath the flowable fill mass contains residual contamination. On October 7, 2015 Nature's Way Environmental installed a 1-inch PVC well through the existing BCP-MW-2 to a final depth of 50 feet bgs. The modified well has remained dry. This provides additional evidence that groundwater and petroleum contamination are limited to the coarse sand and gravel layer 32 to 35 feet bgs.

#### 1.4.1 In-situ Injections

Considering that gravity fed treatments were not reducing groundwater contaminants, during the reporting period pressure injections were completed to continue to reduce contaminant concentrations. Borings were advanced in the lower floor of underground parking to apply in-situ treatments under pressure directly into the contaminated sand and gravel lens. The sections below describe the methods used to conduct two in-situ treatment events on May 24-25, 2017 and September 13-15, 2017.

##### In situ Chemical Oxidizer (ISCO)

The remedial method conducted during this reporting period is chemical oxidation using sodium percarbonate ( $\text{Na}_2\text{CO}_3 \cdot 3 \text{H}_2\text{O}_2$ ). Sodium percarbonate is a common oxidant and has demonstrated significant effectiveness in oxidizing petroleum hydrocarbons. By-products from the reaction include carbon dioxide, sodium chloride, water and carbonic acid; these by-products are non-toxic at the levels produced.

Sodium percarbonate has the potential to be the most persistent oxidant within the subsurface and thus can travel with groundwater to reach areas not accessible via surface injection.

The ISCO product is RegenOX manufactured by Regenesis. RegenOX is formulated to degrade petroleum hydrocarbons through direct oxidation and through the generation of free radical compounds which will also oxidize contaminants. RegenOx is a granulated crystalline that is mixed in water prior to subsurface injection. RegenOx was shipped in 40-pound plastic bags.

RegenOx produces minimal heat and pressure and is non-corrosive, making it a relatively safe chemical oxidant that is compatible for use in direct contact with underground infrastructure such as utilities, tanks, piping, and communication lines. This was an

important characteristic when selecting the ISCO product due to the close proximity of the monitoring wells to the earth retention sheeting for the Conventus Building.

#### Mixing of ISCO Chemicals

Trec Environmental, Inc. was contracted to perform the in situ injections. Injections were conducted on May 24 – 25, 2017 and September 13 – 15, 2017. RegenOX was mixed in steel, 55-gallon drums. Bags of ISCO product were carried to a trailer mounted mixing station.

ISCO product and water was mixed according to manufacturer's specifications. Injection borings received a 6% ISCO solution. RegenOX was mixed with tap water in 55 gallon drums at a concentration of 100 pounds of RegenOX with 110 gallons of water for each location.

#### Injection Borings

The ISCO solution was directly injected into the soil in 12 borings in the sub-basement. Three borings were advanced adjacent to each monitoring wells listed below:

BCP-MW-3	BCP-MW-5
BCP-MW-4	BCP-MW-6

Injection borings (IB-01 through IB-12) are shown in **Figure 4**. Each injection boring had to be carefully located to avoid hitting utilities located underneath the floor, with the intent of being within 10 to 15 feet of each monitoring well. Each injection boring was advanced into the coarse sand and gravel layer, approximately 15 feet below the concrete floor.

The ISCO solution was pumped from the mixing station to a truck mounted geo-probe and into the subsurface. The mix of RegenOX and water was injected under pressure in each boring, and the 12 injection borings received approximately 100 pounds of RegenOx. Additionally, 100 pounds of ISCO material was gravity fed directly into each monitoring well. A total of 1,600 pounds of RegenOx was used for each treatment event. For two treatments, a total of 3,200 pounds of RegenOX was used.

## **2 REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS**

The table below presents a comparison of total VOC and BTEX concentrations from each monitoring well and the percent change from pre-treatment and post-treatment groundwater monitoring.

**Table 2-1: VOC Concentration Change**

<i>Monitoring Well</i>	<i>Percent Change Post Injections May 2017 to July 2017</i>	<i>Percent Change Post Injections May 2017 to November 2017</i>	<i>Percent Change Post Remediation Maximum to November 2017</i>
BCP MW-1	--	--	-99.4
BCP MW-3	-83.5	+44.4	-81.0
BCP MW-4	-82.6	-96	-97.5
BCP MW-5	+66.9	+121.8	-50.1
BCP MW-6	+39.9	+736	+22.6
BCP MW-7	--	--	-96.1

Note: Negative value indicates decrease in concentration and positives value indicates increase in concentration  
BCP-MW-2 was dry. No samples were collected.

**Table 2-2: BTEX Concentration Change**

<i>Monitoring Well</i>	<i>Percent Change Post Injections May 2017 to July 2017</i>	<i>Percent Change Post Injections May 2017 to November 2017</i>	<i>Percent Change Post Remediation Maximum to November 2017</i>
BCP MW-1	--	--	-100
BCP MW-3	-98.9	+30.8	-85.2
BCP MW-4	-97.6	-96.2	-97.6
BCP MW-5	+41.4	+90.3	-56.8
BCP MW-6	+8.1	+762.3	+31.7
BCP MW-7	--	--	-96.6

Note: Negative value indicates decrease in concentration and positives value indicates increase in concentration  
BCP-MW-2 was dry. No samples were collected.

Post-treatment samples collected on July 2017 shows a significant decrease in VOC concentrations in monitoring wells BCP-MW-3 and BCP-MW-4. Other monitoring wells show an increase in concentrations. Post-treatment samples collected in November 2017 demonstrate a rebound of contaminant concentrations in three of the four treated monitoring wells.

The likely reason for this rebound is the desorption of petroleum contaminants previously adhered to the sand / gravel material. As groundwater concentrations decrease, any organic compounds adhered to the saturated media will become soluble, thus increasing groundwater contaminant concentrations. Any future monitoring events would provide additional information regarding this observation, but it is expected that these desorbed contaminants will be oxidized over time, thereby reducing contaminant concentrations.

Despite the recent increases in concentrations in three of the monitoring wells, overall contaminant concentrations are significantly lower than the maximum concentrations recorded following the soil and groundwater removal efforts. Although concentrations are higher in BCP-MW-6 than during previous sampling events, total VOC concentrations in other five monitoring wells have experienced decreases ranging from

50 to 99.4 percent, and the range in BTEX concentration decreases is 56.8 to 100 percent in these wells.

The poor response of BCP-MW-6 to past in-situ treatments and from pump/treat pilot tests may be related to the hydraulic communication between this monitoring well and the higher levels of contamination observed on the Main Street R.O.W.

The cleanup of groundwater contamination along Main Street continues to be addressed under the NYSDEC Spills Program (NYSDEC Spill #9500234) with a Stipulation Agreement between the NYSDEC and Kaleida Health. Kaleida Health is actively remediating the Main Street contamination with in-situ oxidative treatments.

**Graph 1** shows total BTEX concentrations over time. **Figure 3** shows the historic BTEX concentrations from each well.

### **3 IC/EC PLAN COMPLIANCE REPORT**

#### **3.1 IC/EC Requirements and Compliance**

As stated in the 2014 Decision Document, the remedial action objectives (RAO) selected for this Site are:

##### **RAOs for Public Health Protection**

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

##### **RAOs for Environmental Protection**

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.

##### **3.1.1 Institutional Controls**

The institutional controls for this Site are:

- The Site may only be used for restricted residential use provided that the long-term Engineering and Institutional Controls included in this SMP are employed;
- The Site may not be used for a higher level of use, unrestricted or residential use, without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the Site that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the Site is prohibited by the City of Buffalo; and

- Vegetable gardens and farming on the Site are prohibited.

The Site has not changed owners and the land use of the Site has not change. All intuitional controls for this Site are in accordance with requirements of the Environmental Easement.

### 3.1.2 Engineering Controls

The engineering controls for this Site are:

- Groundwater treatment and monitoring using the seven wells installed in the sub-basement of the building

All engineering controls for this Site are in accordance with requirements of the Environmental Easement.

## 3.2 IC/EC Certification

As required, the Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certificate Form has been completed and a copy is provided in **Appendix B**.

## 4 MONITORING PLAN COMPLIANCE REPORT

The SMP identified the need for continued monitoring of groundwater conditions at the Site, including the periodic measuring of water levels and collecting groundwater samples for VOC analysis.

The following monitoring wells are included in the groundwater monitoring plan:

- BCP-MW-1
- BCP-MW-2
- BCP-MW-3
- BCP-MW-4
- BCP-MW-5
- BCP-MW-6

All monitoring wells were sampled with the exception of BCP-MW-2, which has remained dry since its installation.

The groundwater monitoring activities included the collection of depth-to-water measurements at each monitoring well and the collection of groundwater samples for laboratory analysis. Groundwater sampling was conducted in accordance with the U.S.

Environmental Protection Agency Low flow sample procedure. Groundwater sample occurred on the dates below:

September 20, 2013	October 7, 2015	December 8, 2016
March 19, 2014	December 14, 2015	January 20, 2017
May 22, 2014	January 27, 2016	May 17, 2017
March 11, 2015	March 22, 2016	July 5, 2017
June 17, 2015	June 3, 2016	November 2, 2017
August 3, 2015	October 25, 2016	

**Figure 3** shows the location of the groundwater wells in the sub-basement of the Conventus building.

**Table 1** presents detected compounds over all monitoring events.

## **5 OPERATION AND MAINTENANCE PLAN COMPLIANCE**

The only maintenance items are those associated with the monitoring wells. Minor maintenance to the well caps, PVC risers and road boxes is recommended for some of the monitoring wells. These issues do not interfere with groundwater monitoring or the integrity of the samples.

## **6 CONCLUSIONS**

Based upon the remedial activities performed, the following conclusions have been formulated:

- All of the required work was completed and is reported herein.
- The remedial activities performed at the Site have prevented any adverse risk to human health and the environment.

## **7 RECOMMENDATIONS**

At this time, pressurized in-situ injections are the most efficient method to apply chemical oxidants into the subsurface. Additional treatment events are planned for the Site and on the Main Street R.O.W.

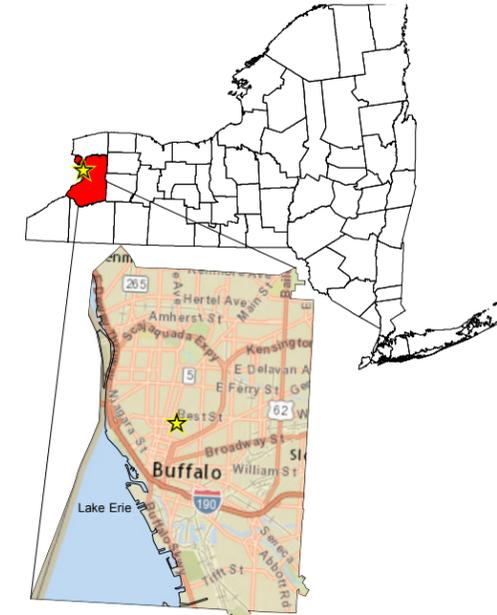
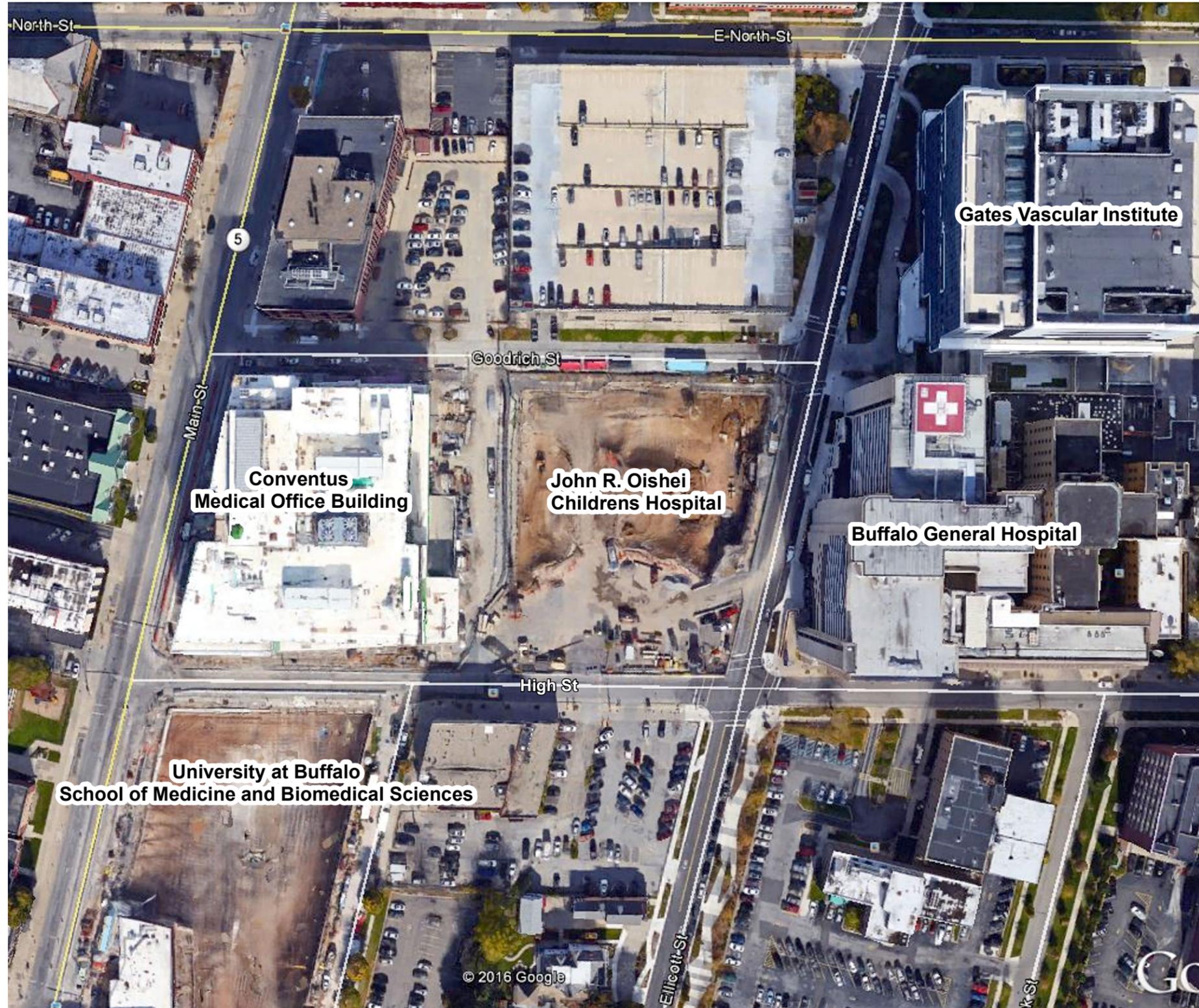
Based on the results described above, it appears that significant onsite groundwater remediation has reduced BTEX concentrations 56.8 to 100 percent in five monitoring wells. Results for one monitoring well, BCP-MW-6, lag behind the other wells due to offsite contaminant loading to the Site. Given that offsite efforts are being addressed under a different NYSDEC Program and responsible party, we request to meet with the NYSDEC to discuss these findings and their implications on deeming the remediation complete.

The additional in-situ treatment will consist of the following:

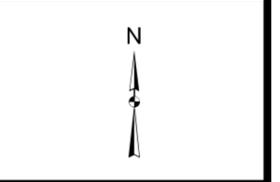
- C&S will subcontract to perform the drilling and injections.
- A total of six to ten borings will be advanced: three to five borings each around BCP-MW-5 and BCP-MW-6. Borings will be advanced to approximately 15 feet below the parking floor surface (30 feet below ground surface).
  - The borings proximal to BCP-MW-5 and BCP-MW6 will make use of borings created during the previous injection events.
- Borings will be advanced through the concrete floor of the parking garage to a depth that targets the saturated sand / gravel layer.
- The ISCO product will be mixed with water onsite using 55-gallon steel drums.
- The ISCO solution will be injected into the sand / gravel layer under pressure.
- BCP-MW-5 and BCP-MW-6 will each receive 400 pounds of ISCO product; a total of 800 pounds of ISCO product will be injected per event. A total of 3,200 pounds in four events throughout the year.
- Following injection, soils removed from the borings will be placed back into the borehole from which it came and a high strength concrete mix will be used to repair the parking garage surface.
- Groundwater sampling will be conducted semi-annually on the all monitoring wells in the sub-basement of the Conventus Site. All groundwater samples will be collected for VOCs and analyzed using EPA Method 8260.

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# FIGURES



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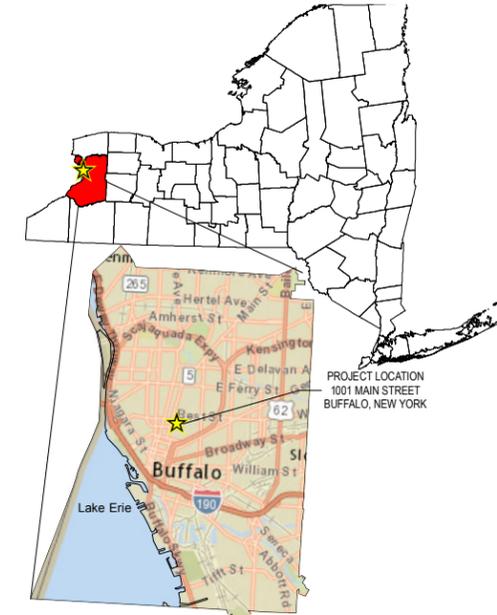
**FORMER MOBIL STATION 99-MST  
 979 MAIN ST (1001 MAIN ST)  
 PERIODIC REVIEW REPORT**

**BUFFALO, NEW YORK**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K11.002.001		
DATE: APRIL 20, 2016		
DRAWN BY: C. MARTIN		
DESIGNED BY: C. MARTIN		
CHECKED BY: D. RIKER		
NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW		

SITE LOCATION

FIGURE 1



**Legend**

- Parcel Boundary
- Brownfield Cleanup Program Boundary

**Property Note**

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

**Notes**

- 1) Groundwater elevation benchmark.
- 2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103  
Projection: Transverse Mercator  
Datum: North American 1983  
Units: Foot US



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**FORMER MOBIL STATION 99-MST  
 979 MAIN ST (1001 MAIN ST)  
 BROWNFIELD CLEANUP PROGRAM  
 BUFFALO, NEW YORK**

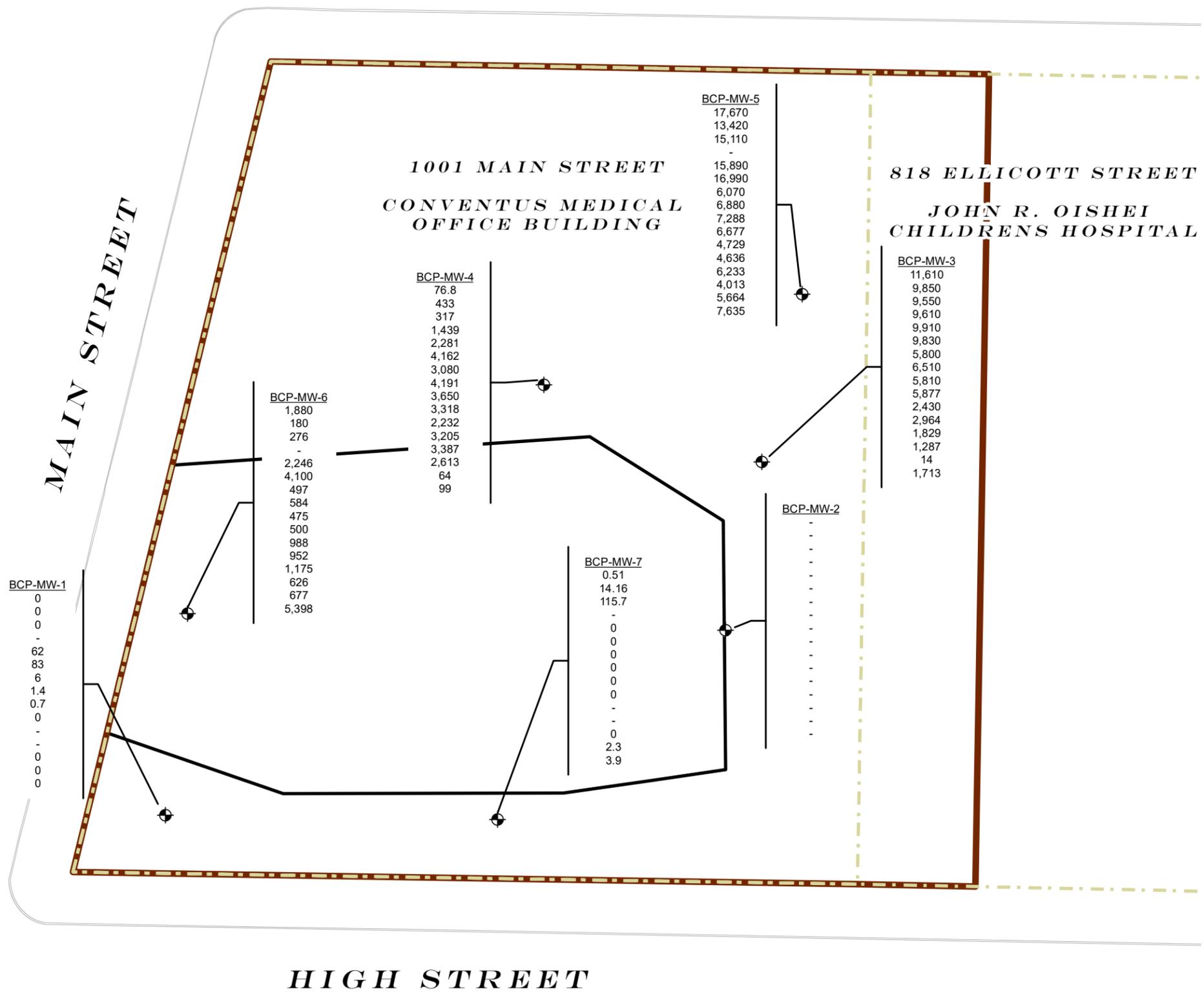
MARK	DATE	DESCRIPTION
REVISIONS		
	PROJECT NO:	K11.002.001
	DATE:	May 4, 2016
	DRAWN BY:	C. MARTIN
	DESIGNED BY:	C. MARTIN
	CHECKED BY:	
NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW		

PROJECT  
 BOUNDARIES

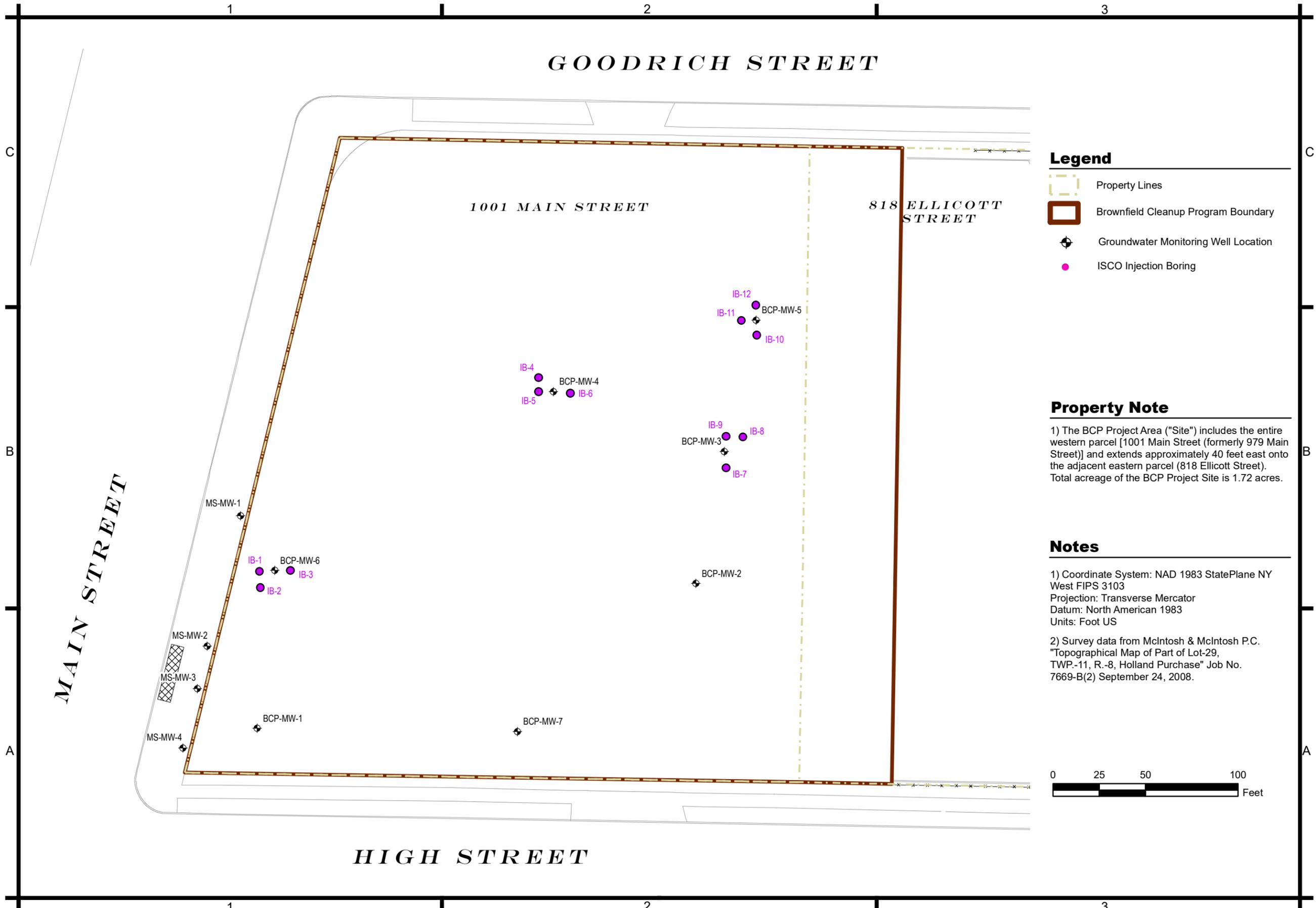
FIGURE 2

Path: F:\Project\K11 - Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\PRR\FIGURE\_1\_PRR.mxd

# GOODRICH STREET



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**Legend**

- Property Lines
- Brownfield Cleanup Program Boundary
- Groundwater Monitoring Well Location
- ISCO Injection Boring

**Property Note**

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

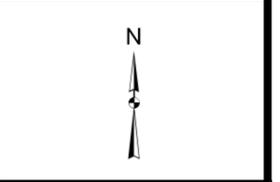
**Notes**

1) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103  
 Projection: Transverse Mercator  
 Datum: North American 1983  
 Units: Foot US

2) Survey data from McIntosh & McIntosh P.C. "Topographical Map of Part of Lot-29, TWP.-11, R.-8, Holland Purchase" Job No. 7669-B(2) September 24, 2008.



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**FORMER MOBIL STATION 99-MST  
 979 MAIN ST (1001 MAIN ST)  
 BROWNFIELD CLEANUP PROGRAM  
 BUFFALO, NEW YORK**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K11.002.001		
DATE: JUNE 15, 2016		
DRAWN BY: C. MARTIN		
DESIGNED BY: C. MARTIN		
CHECKED BY: D. RIKER		
NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW		

INJECTION BORINGS

FIGURE 4

# TABLES

**Table 1 - Groundwater Analytical Results**  
**Summary of Detected Compounds**  
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2014	12/15/2015	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/2/2017	
Date Collected	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Unit	<b>NYSDEC Ambient Water Quality Standards &amp; Guidance Values</b>															
Volatile Organic Compound	Surface Water	Groundwater														
	2-HEXANONE	50	50	ND	ND	ND		ND	ND	3.5	ND	ND	ND		ND	ND
ACETONE	50	50	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	5.1	ND
BENZENE	1	1	ND	ND	ND		35	39	5.7	1.4	0.72	ND		ND	ND	0.33
ETHYLBENZENE	5	5	ND	ND	ND		2	1.5	ND	ND	ND	ND		ND	ND	ND
ISOPROPYLBENZENE (CUMENE)	5	5	ND	ND	ND		1.3	ND	ND	ND	ND	ND		ND	ND	ND
METHYL ETHYL KETONE (2-BUTANONE)	50	50	ND	ND	ND		ND	45	ND	ND	ND	ND		ND	ND	ND
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND	ND
TOLUENE	5	5	ND	ND	ND		19	38	0.55	ND	ND	ND		ND	ND	1.1
1,1,2-TRICHLOROETHANE	1	1	ND	ND	ND		ND	ND	ND	0.33 J	ND	ND		ND	ND	ND
XYLENES, TOTAL	5	5	ND	ND	ND		6.4	4.2	ND	ND	ND	ND		ND	ND	ND
NAPHTHALENE	10	10	ND	ND	ND		ND	ND	ND	0.33 J	ND	ND		ND	ND	ND
<b>No Standard</b>																
CARBON DISULFIDE			ND	ND	0.94		ND	ND	ND	ND	ND	ND		ND	ND	ND
CYCLOHEXANE			ND	ND	ND		35	59	61	51	72	ND		ND	ND	ND
METHYL ISOBUTYL KETONE			ND	ND	ND		ND	13	ND	ND	ND	ND		ND	ND	ND
METHYLCYCLOHEXANE			ND	ND	0.47		3.2	17	15	11	ND	ND		ND	ND	ND
<b>Total VOCs</b>	<b>0</b>	<b>0</b>	<b>1.41</b>	<b>-</b>	<b>101.90</b>	<b>216.70</b>	<b>85.75</b>	<b>63.40</b>	<b>72.72</b>	<b>0</b>	<b>-</b>	<b>5.1</b>	<b>1.4</b>			
<b>Total BTEX</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>62</b>	<b>83</b>	<b>6</b>	<b>1.4</b>	<b>0.7</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Non-Standard VOC List</b>																
1,3,5-TRIMETHYLBENZENE	5	5													ND	ND
1,2,4,5-TETRAMETHYLBENZENE	5	5													ND	ND
1,2,4-TRIMETHYLBENZENE	5	5													ND	ND
SEC-BUTYLBENZENE	5	5													ND	ND
N-PROPYLBENZENE	5	5													ND	ND
N-BUTYLBENZENE	5	5													ND	ND
P-ISOPROPYLTOLUENE															ND	ND
1,4-DIETHYLBENZENE															ND	ND

Notes:

Not Sampled

1) Blank space = analyte concentration not reported

2) BCP MW-2 was dry and not sampled

3) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.

4) WG = groundwater

**Table 1 - Groundwater Analytical Results**  
**Summary of Detected Compounds**  
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	
Date Collected	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2015	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/2/2017		
Matrix	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
<b>NYSDEC Ambient Water Quality Standards &amp; Guidance Values</b>																		
<b>Volatiles Organic Compound</b>	<b>Surface Water</b>	<b>Groundwater</b>																
2-HEXANONE	50	50	ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	ND	
ACETONE	50	50	ND	98	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	166	ND	
BENZENE	1	1	6,600	4,500	4,700	3,700	4,300	4,100	2,100	2,200	1,900	3,100	1,390	635	363	451	3	364
ETHYLBENZENE	5	5	1,200	1,600	1,500	1,600	1,500	1,700	1,400	1,600	1,600	610	194	899	517	197	2.4	384
ISOPROPYLBENZENE (CUMENE)	5	5	ND	37	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.7
METHYL ETHYL KETONE (2-BUTANONE)	50	50	ND	71	ND	6.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	201	51.4	51.4
METHYLENE CHLORIDE	5	5	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	ND	ND	ND	ND	ND	ND
TOLUENE	5	5	110	150	150	110	110	130	100	110	110	67	39.4	74.5	38.4	22.6	1.6	34.8
1,1,2-TRICHLOROETHANE	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
XYLENES, TOTAL	5	5	3,700	3,600	3,200	4200	4000	3900	2200	2600	2200	2100	806.3	1430	949	639	7.1	930.0
NAPHTHALENE	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	357	
<b>No Standard</b>																		
CARBON DISULFIDE			ND	ND	ND	0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE			120	320	270	390	330	210	100	93	110	170	ND	ND	ND	ND	ND	60.5
METHYL ISOBUTYL KETONE			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE			ND	130	150	120	160	96	34	33	36 J	170	47.7	ND	ND	29.5	ND	33.4
<b>Total VOCs</b>			<b>11,730</b>	<b>10,506</b>	<b>9,970</b>	<b>10,179</b>	<b>10,400</b>	<b>10,136</b>	<b>5,934</b>	<b>6,636</b>	<b>5,920</b>	<b>6,252</b>	<b>2,477</b>	<b>3,038</b>	<b>1,867</b>	<b>1,540</b>	<b>254</b>	<b>2,224</b>
<b>Total BTEX</b>			<b>11,610</b>	<b>9,850</b>	<b>9,550</b>	<b>9,610</b>	<b>9,910</b>	<b>9,830</b>	<b>5,800</b>	<b>6,510</b>	<b>5,810</b>	<b>5,877</b>	<b>2,430</b>	<b>3,038</b>	<b>1,867</b>	<b>1,310</b>	<b>14</b>	<b>1,713</b>
<b>Non-Standard VOC List</b>																		
1,3,5-TRIMETHYLBENZENE	5	5															ND	133
1,2,4,5-TETRAMETHYLBENZENE	5	5															ND	ND
1,2,4-TRIMETHYLBENZENE	5	5															4.9	737
SEC-BUTYLBENZENE	5	5															ND	ND
N-PROPYLBENZENE	5	5															ND	ND
N-BUTYLBENZENE	5	5															ND	ND
P-ISOPROPYLTOLUENE																	ND	ND
1,4-DIETHYLBENZENE																	ND	ND

Notes:

Not Sampled

1) Blank space = analyte concentration not reported

2) BCP MW-2 was dry and not sampled

3) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.

4) WG = groundwater

**Table 1 - Groundwater Analytical Results**  
**Summary of Detected Compounds**  
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	
	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/17/2017		
Date Collected	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Unit	<b>NYSDEC Ambient Water Quality Standards &amp; Guidance Values</b>																	
Volatile Organic Compound	Surface Water	Groundwater																
	2-HEXANONE	50	50	ND	ND	ND	1.7	ND	ND	ND								
ACETONE	50	50	10	250	170	67	ND	210	ND	38.2	10							
BENZENE	1	1	42	29	15	26	24	242	ND	21	ND	21	9.57	12.8	10.2	10.8	1.3	97.0
ETHYLBENZENE	5	5	4.7	34	32	560	1,000	680	1,100	1300	1,400	1400	1,000	1170	1,300	1220	28	1.8
ISOPROPYLBENZENE (CUMENE)	5	5	ND	ND	ND	9.8	15.0	26	ND	ND	ND	ND	19	30.3	28.7	ND	2.3	ND
METHYL ETHYL KETONE (2-BUTANONE)	50	50	ND	ND	ND	ND	8.50	ND	6.9	ND								
METHYLENE CHLORIDE	5	5	ND	ND	1 J	ND	ND	ND	ND	52	ND	42	ND	ND	ND	ND	ND	ND
TOLUENE	5	5	1.1	190	110	53	57	140	180	270	150	97	62.4	130	133	92.2	9.8	ND
1,1,2-TRICHLOROETHANE	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
XYLENES, TOTAL	5	5	29	180	160	800	1,200	3100	1,800	2600	2,100	1800	1,160	1892	1,944	1289.7	24.5	ND
NAPHTHALENE	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	ND
<b>No Standard</b>																		
CARBON DISULFIDE			ND	ND	1.9 J	ND	ND	ND										
CYCLOHEXANE			8.2	11	7	170	170	110	160	220	250	340	189	259	276	235	276	5.5
METHYL ISOBUTYL KETONE			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE			7.5	3.7	3.1	87	92	69	86	100	110	140	85.1	110	123	99.7	123	2.4
<b>Total VOCs</b>			<b>102.5</b>	<b>697.7</b>	<b>497.1</b>	<b>1,774.5</b>	<b>2,566.5</b>	<b>4,577.0</b>	<b>3,326.0</b>	<b>4,563.0</b>	<b>4,010.0</b>	<b>3,840.0</b>	<b>2,525.5</b>	<b>3,604.1</b>	<b>3,814.9</b>	<b>2,947.4</b>	<b>511.9</b>	<b>116.7</b>
<b>Total BTEX</b>			<b>76.8</b>	<b>433</b>	<b>317</b>	<b>1,439</b>	<b>2,281</b>	<b>4,162</b>	<b>3,080</b>	<b>4,191</b>	<b>3,650</b>	<b>3,318</b>	<b>2,232</b>	<b>3,205</b>	<b>3,387</b>	<b>2,613</b>	<b>64</b>	<b>99</b>
<b>Non-Standard VOC List</b>																		
1,3,5-TRIMETHYLBENZENE	5	5															2	ND
1,2,4,5-TETRAMETHYLBENZENE	5	5															1.1	ND
1,2,4-TRIMETHYLBENZENE	5	5															1.1	ND
SEC-BUTYLBENZENE	5	5															ND	ND
N-PROPYLBENZENE	5	5															2.3	ND
N-BUTYLBENZENE	5	5															1.7	ND
P-ISOPROPYLTOLUENE																	ND	ND
1,4-DIETHYLBENZENE																	ND	ND

Notes:

Not Sampled

1) Blank space = analyte concentration not reported

2) BCP MW-2 was dry and not sampled

3) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.

4) WG = groundwater

**Table 1 - Groundwater Analytical Results**  
**Summary of Detected Compounds**  
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5		
	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/2/2017			
Date Collected	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG		
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
Unit	NYSDEC Ambient Water Quality Standards & Guidance Values																		
Volatiles Organic Compound	Surface Water	Groundwater																	
2-HEXANONE	50	50	11	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ACETONE	50	50	ND	520	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.3	ND	
BENZENE	1	1	5,600	4,800	4,900		3,700	4,100	1,800	1,800	1,700	1,600	899	949	682	428	574	283	
ETHYLBENZENE	5	5	1,900	1,600	1,600		2,800	2,600	1,600	1,900	2,200	2,200	1,490	1,450	2,070	584	534	1,660	
ISOPROPYLBENZENE (CUMENE)	5	5	28	29	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.6	ND	
METHYL ETHYL KETONE (2-BUTANONE)	50	50	10	350	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.1	ND	
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	77	96	ND	ND	ND	ND	ND	ND	
TOLUENE	5	5	170	220	310		290	290	70	80	88	77	68.5	84.9	86.6	ND	36.2	82.0	
1,1,2-TRICHLOROETHANE	1	1	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
XYLENES, TOTAL	5	5	10,000	6,800	8,300		9,100	10,000	2,600	3,100	3,300	2,800	2,271.3	2,152.2	3,394.7	3,000.7	4,520.0	5,610.0	
NAPHTHALENE	10	10	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	730	1,030	
<b>No Standard</b>																			
CARBON DISULFIDE			ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	ND	
CYCLOHEXANE			230	340	240		430	260	230	250	280	430	198	148	257	ND	257	238	
METHYL ISOBUTYL KETONE			23	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
METHYLCYCLOHEXANE			100	170	150		190	130	92	100	100	140	67.5	58.4	92.8	49	92.8	106	
<b>Total VOCs</b>			<b>18,072</b>	<b>14,829</b>	<b>15,500</b>		<b>-</b>	<b>16,510</b>	<b>17,380</b>	<b>6,392</b>	<b>7,230</b>	<b>7,745</b>	<b>7,343</b>	<b>4,994</b>	<b>4,843</b>	<b>6,583</b>	<b>4,062</b>	<b>6,780</b>	<b>9,009</b>
<b>Total BTEX</b>			<b>17,670</b>	<b>13,420</b>	<b>15,110</b>		<b>-</b>	<b>15,890</b>	<b>16,990</b>	<b>6,070</b>	<b>6,880</b>	<b>7,288</b>	<b>6,677</b>	<b>4,729</b>	<b>4,636</b>	<b>6,233</b>	<b>4,013</b>	<b>5,664</b>	<b>7,635</b>
<b>Non-Standard VOC List</b>																			
1,3,5-TRIMETHYLBENZENE	5	5																823	ND
1,2,4,5-TETRAMETHYLBENZENE	5	5																135	ND
1,2,4-TRIMETHYLBENZENE	5	5																2,280	2,490
SEC-BUTYLBENZENE	5	5																3.2	ND
N-PROPYLBENZENE	5	5																34.8	ND
N-BUTYLBENZENE	5	5																43.3	ND
P-ISOPROPYLTOLUENE																		5.7	ND
1,4-DIETHYLBENZENE																		347	ND

Notes:

 Not Sampled

1) Blank space = analyte concentration not reported

2) BCP MW-2 was dry and not sampled

3) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.

4) WG = groundwater

**Table 1 - Groundwater Analytical Results**  
**Summary of Detected Compounds**  
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	
	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/14/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/2/2017		
Date Collected	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Unit	<b>NYSDEC Ambient Water Quality Standards &amp; Guidance Values</b>																	
Volatile Organic Compound	Surface Water	Groundwater																
	2-HEXANONE	50	50	ND	ND	ND	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	50	50	ND	ND	ND	480	340	ND	ND	ND	ND	ND	ND	ND	ND	102	ND	
BENZENE	1	1	190	33	16	470	890	250	230	200	120	302	168	200	113	131	774	
ETHYLBENZENE	5	5	130	20	31	36	210	22	44	67	50	163	169	173	175	85.5	154.0	
ISOPROPYLBENZENE (CUMENE)	5	5	4.4	ND	1.9 J		ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	
METHYL ETHYL KETONE (2-BUTANONE)	50	50	ND	ND	ND	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.6	ND	
METHYLENE CHLORIDE	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TOLUENE	5	5	810	42	79	1,000	1,900	85	120	78	120	130	255	351	147	22.5	2,970.0	
1,1,2-TRICHLOROETHANE	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
XYLENES, TOTAL	5	5	750	85	150	740	1,100	140	190	130	210	393	360	451	190.7	438	1,500	
NAPHTHALENE	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	86.6	ND	
<b>No Standard</b>																		
CARBON DISULFIDE			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
CYCLOHEXANE			68	ND	130	270	41	62	110	110	91	81.5	ND	ND	ND	ND	84	
METHYL ISOBUTYL KETONE			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
METHYLCYCLOHEXANE			46	16	18	170	27	24	21	10	24	32.2	30.2	36.9	35.3	36.9	44	
<b>Total VOCs</b>			<b>1,998.4</b>	<b>196</b>	<b>424</b>	<b>-</b>	<b>3,466</b>	<b>4,508</b>	<b>583</b>	<b>715</b>	<b>595</b>	<b>615</b>	<b>1,101</b>	<b>983</b>	<b>1,212</b>	<b>661</b>	<b>925</b>	<b>5,526</b>
<b>Total BTEX</b>			<b>1,880</b>	<b>180</b>	<b>276</b>	<b>-</b>	<b>2,246</b>	<b>4,100</b>	<b>497</b>	<b>584</b>	<b>475</b>	<b>500</b>	<b>988</b>	<b>952</b>	<b>1,175</b>	<b>626</b>	<b>677</b>	<b>5,398</b>
<b>Non-Standard VOC List</b>																		
1,3,5-TRIMETHYLBENZENE	5	5														74.3	ND	
1,2,4,5-TETRAMETHYLBENZENE	5	5														14.3	ND	
1,2,4-TRIMETHYLBENZENE	5	5														134	ND	
SEC-BUTYLBENZENE	5	5																
N-PROPYLBENZENE	5	5														11.3	ND	
N-BUTYLBENZENE	5	5														4.6	ND	
P-ISOPROPYLTOLUENE																1.6	1.6	
1,4-DIETHYLBENZENE																32.9	32.9	

Notes:

-  Not Sampled
- 1) Blank space = analyte concentration not reported
- 2) BCP MW-2 was dry and not sampled
- 3) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.
- 4) WG = groundwater

**Table 1 - Groundwater Analytical Results**  
**Summary of Detected Compounds**  
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	
	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/2/2017		
Date Collected	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Unit	<b>NYSDEC Ambient Water Quality Standards &amp; Guidance Values</b>																
Volatile Organic Compound	Surface Water	Groundwater															
	2-HEXANONE	50	50	ND	ND	4.8		ND	ND	ND	ND	ND	ND		ND	ND	ND
ACETONE	50	50	ND	3	ND		ND	ND	ND	ND	ND	ND		ND	ND	ND	
BENZENE	1	1	0.51	8.8	14		ND	ND	ND	ND	ND	ND		ND	2.3	2.81	
ETHYLBENZENE	5	5	ND	ND	3		ND	ND	ND	ND	ND	ND		ND	ND	0	
ISOPROPYLBENZENE (CUMENE)	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND	0.45	
METHYL ETHYL KETONE (2-BUTANONE)	50	50	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND	ND	
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND	ND	
TOLUENE	5	5	ND	0.56	4.7		ND	ND	ND	ND	ND	ND		ND	ND	1.1	
1,1,2-TRICHLOROETHANE	1	1															
XYLENES, TOTAL	5	5	0.96	4.8	94		ND	ND	ND	0.99 J	ND	ND		ND	ND	ND	
NAPHTHALENE	10	10															
<b>No Standard</b>																	
CARBON DISULFIDE			ND	ND	0.97		ND	ND	ND	ND	ND	ND		ND	ND	ND	
CYCLOHEXANE			ND	4.3	9.6		ND	ND	0.71	ND	ND	ND		ND	ND	0.99	
METHYL ISOBUTYL KETONE			ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND	ND	
METHYLCYCLOHEXANE			ND	1.7	5.1		0.18	ND	ND	ND	ND	ND		ND	ND	ND	
<b>Total VOCs</b>			<b>1.47</b>	<b>23.16</b>	<b>136.17</b>		<b>0.18</b>		<b>0.71</b>							<b>2.30</b>	<b>5.35</b>
<b>Total BTEX</b>			<b>0.51</b>	<b>14.16</b>	<b>115.7</b>											<b>2.3</b>	<b>3.9</b>
<b>Non-Standard VOC List</b>																	
1,3,5-TRIMETHYLBENZENE	5	5														ND	ND
1,2,4,5-TETRAMETHYLBENZENE	5	5														ND	ND
1,2,4-TRIMETHYLBENZENE	5	5														ND	ND
SEC-BUTYLBENZENE	5	5															
N-PROPYLBENZENE	5	5															
N-BUTYLBENZENE	5	5															
P-ISOPROPYLTOLUENE																	
1,4-DIETHYLBENZENE																	

Notes:

Not Sampled

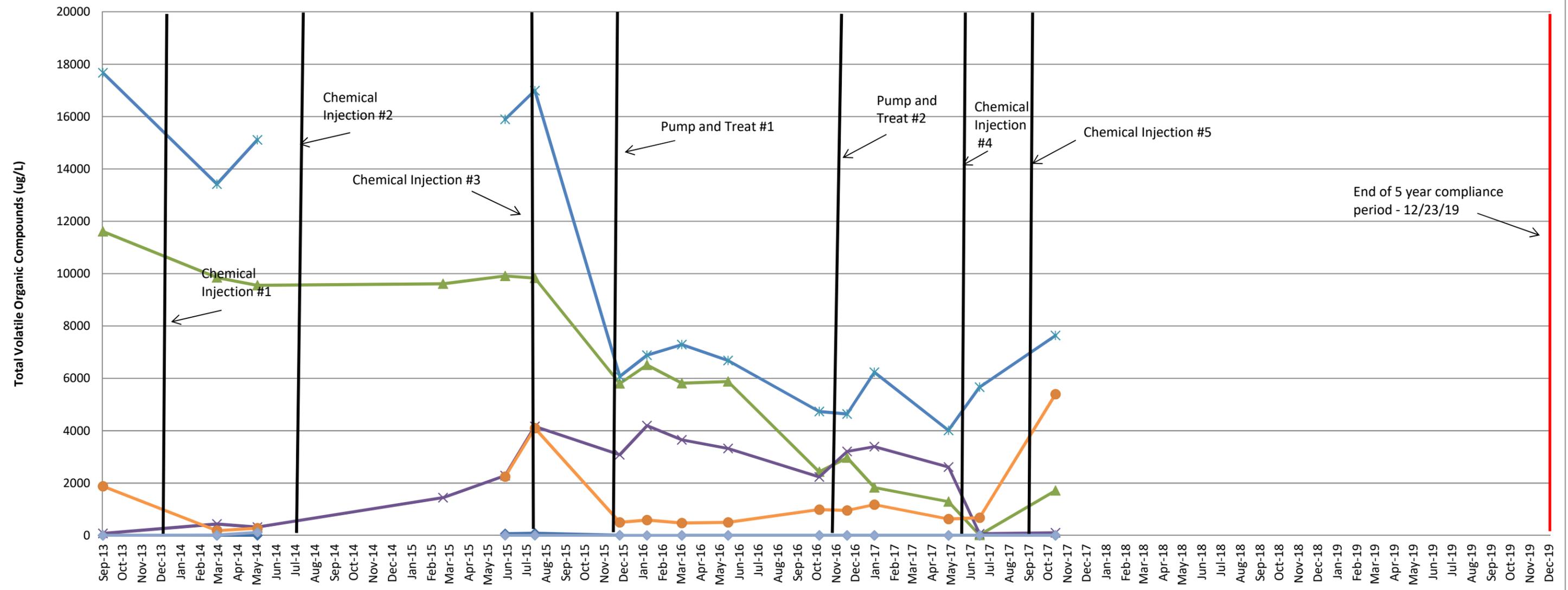
- Blank space = analyte concentration not reported
- BCP MW-2 was dry and not sampled
- For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.
- WG = groundwater

# GRAPHS



**Former Mobil Station 99-MST 979 Main Street (1001 Main Street)  
Conventus Groundwater Remediation**

**GROUNDWATER TREATMENT MONITORING - TOTAL BTEX**



	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	5/17/2017	7/5/2017	11/2/2017
BCP MW-1	0	0	0		62	83	6.25		1	1	-	-	-	-	-	-
BCP MW-2																
BCP MW-3	11,610	9,850	9,550	9,610	9,910	9,830	5,800	6,510	5,810	5,877	2,430	2,964	1,829	1,287	14	1,713
BCP MW-4	76.8	433	317	1,439	2,281	4,162	3,080	4,191	3,650	3,318	2,232	3,205	3,387	2,613	64	99
BCP MW-5	17,670	13,420	15,110		15,890	16,990	6,070	6,880	7,288	6,677	4,729	4,636	6,233	4,013	5,664	7,635
BCP MW-6	1,880	180	276		2,246	4,100	497	584	475	500	988	952	1,175	626	677	5,398
BCP MW-7	1	14.16	115.7		0	0	0	-	-	-	-	-	-	-	2.3	3.9

# APPENDICES

APPENDIX A  
LABORATORY ANALYTICAL RESULTS



## ANALYTICAL REPORT

Lab Number:	L1742555
Client:	C&S Companies 141 Elm Street, Suite 100 Buffalo, NY 14203
ATTN:	Cody Martin
Phone:	(716) 847-1630
Project Name:	(N46) CONVENTUS
Project Number:	N46.001.001
Report Date:	11/30/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1742555-01	BCP-MW-4	WATER	CONVENTUS	11/17/17 11:50	11/17/17

**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Volatile Organics

L1742555-01: The sample was collected in a pre-preserved vial; however, the pH of the sample was determined to be greater than two. Samples that have a pH of greater than two should be analyzed within 7 days of collection; therefore, the sample was analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 11/30/17

# ORGANICS

# VOLATILES

Project Name: (N46) CONVENTUS

Lab Number: L1742555

Project Number: N46.001.001

Report Date: 11/30/17

## SAMPLE RESULTS

Lab ID: L1742555-01  
 Client ID: BCP-MW-4  
 Sample Location: CONVENTUS

Date Collected: 11/17/17 11:50  
 Date Received: 11/17/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 11/29/17 11:30  
 Analyst: BD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	1.0	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	0.20	J	ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.48	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	97		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	1.8	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: (N46) CONVENTUS

Lab Number: L1742555

Project Number: N46.001.001

Report Date: 11/30/17

## SAMPLE RESULTS

Lab ID: L1742555-01  
 Client ID: BCP-MW-4  
 Sample Location: CONVENTUS

Date Collected: 11/17/17 11:50  
 Date Received: 11/17/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	10		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	0.74	J	ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	5.5	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	2.4	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	84		70-130

**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 11/29/17 09:23  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1067184-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 11/29/17 09:23  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1067184-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Tentatively Identified Compounds

Total TIC Compounds	1.08	J	ug/l
Sulfur Dioxide	1.08	NJ	ug/l



Project Name: (N46) CONVENTUS

Lab Number: L1742555

Project Number: N46.001.001

Report Date: 11/30/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 11/29/17 09:23  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1067184-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: (N46) CONVENTUS

Lab Number: L1742555

Project Number: N46.001.001

Report Date: 11/30/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1067184-3 WG1067184-4								
Methylene chloride	92		90		70-130	2		20
1,1-Dichloroethane	95		95		70-130	0		20
Chloroform	90		90		70-130	0		20
Carbon tetrachloride	83		80		63-132	4		20
1,2-Dichloropropane	95		94		70-130	1		20
Dibromochloromethane	85		82		63-130	4		20
1,1,2-Trichloroethane	97		97		70-130	0		20
Tetrachloroethene	81		80		70-130	1		20
Chlorobenzene	92		90		75-130	2		20
Trichlorofluoromethane	93		91		62-150	2		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	88		86		67-130	2		20
Bromodichloromethane	86		85		67-130	1		20
trans-1,3-Dichloropropene	83		81		70-130	2		20
cis-1,3-Dichloropropene	80		78		70-130	3		20
Bromoform	84		82		54-136	2		20
1,1,2,2-Tetrachloroethane	100		98		67-130	2		20
Benzene	95		94		70-130	1		20
Toluene	95		94		70-130	1		20
Ethylbenzene	95		94		70-130	1		20
Chloromethane	110		110		64-130	0		20
Bromomethane	91		90		39-139	1		20
Vinyl chloride	120		120		55-140	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: (N46) CONVENTUS

Lab Number: L1742555

Project Number: N46.001.001

Report Date: 11/30/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1067184-3 WG1067184-4								
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	99		98		61-145	1		20
trans-1,2-Dichloroethene	91		90		70-130	1		20
Trichloroethene	87		89		70-130	2		20
1,2-Dichlorobenzene	92		89		70-130	3		20
1,3-Dichlorobenzene	92		90		70-130	2		20
1,4-Dichlorobenzene	89		87		70-130	2		20
Methyl tert butyl ether	98		91		63-130	7		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	88		91		70-130	3		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	100		99		36-147	1		20
Acetone	83		80		58-148	4		20
Carbon disulfide	97		96		51-130	1		20
2-Butanone	82		87		63-138	6		20
4-Methyl-2-pentanone	85		85		59-130	0		20
2-Hexanone	65		62		57-130	5		20
Bromochloromethane	90		90		70-130	0		20
1,2-Dibromoethane	94		92		70-130	2		20
1,2-Dibromo-3-chloropropane	76		71		41-144	7		20
Isopropylbenzene	86		85		70-130	1		20
1,2,3-Trichlorobenzene	91		73		70-130	22	Q	20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: (N46) CONVENTUS

Project Number: N46.001.001

Lab Number: L1742555

Report Date: 11/30/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1067184-3 WG1067184-4								
1,2,4-Trichlorobenzene	84		76		70-130	10		20
Methyl Acetate	88		85		70-130	3		20
Cyclohexane	93		93		70-130	0		20
1,4-Dioxane	110		100		56-162	10		20
Freon-113	100		99		70-130	1		20
Methyl cyclohexane	87		88		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		99		70-130
Toluene-d8	100		98		70-130
4-Bromofluorobenzene	107		107		70-130
Dibromofluoromethane	94		93		70-130

**Project Name:** (N46) CONVENTUS

**Project Number:** N46.001.001

Serial\_No:11301713:48

**Lab Number:** L1742555

**Report Date:** 11/30/17

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

**Cooler**                      **Custody Seal**

A                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1742555-01A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L1742555-01B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L1742555-01C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)

**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

#### Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** (N46) CONVENTUS  
**Project Number:** N46.001.001

**Lab Number:** L1742555  
**Report Date:** 11/30/17

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page		Date Rec'd in Lab	11/18/17	ALPHA Job # C1742555
		of				
		<b>Project Information</b>		<b>Deliverables</b>		<b>Billing Information</b>
<b>Client Information</b>	<b>Project Information</b>	Project Name: (N46) Conventus		<input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info
Client: C & S Engineers, Inc.	Project Location: Conventus	Project # N46.001.001		Regulatory Requirement <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <b>TCL VOCS</b> <input type="checkbox"/> NYC Sewer Discharge		PO #
Address: 191 Elm Street Suite 100	Project Manager: Cody Martin (please verify w/ Cody Martin)	(Use Project name as Project #) <input type="checkbox"/>				Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:
Phone: (716) 847-1630	ALPHAQuote #:	Turn-Around Time				
Fax: (716) 847-1454	Standard <input checked="" type="checkbox"/>	Due Date:				
Email: cmartin@cscos.com	Rush (only if pre approved) <input type="checkbox"/>	# of Days:				
These samples have been previously analyzed by Alpha <input type="checkbox"/>				<b>ANALYSIS</b>		<b>Sample Filtration</b>
Other project specific requirements/comments:				Total Bottles 270		<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)
						Sample Specific Comments
Please specify Metals or TAL.						
		Collection		Sample Matrix	Sampler's Initials	
ALPHA Lab ID (Lab Use Only)	Sample ID	Date	Time			
42555-01	BCP-MW-4	11/17/17	11:50 am	GW	AS	X
Preservative Code: A = None, B = HCl, C = HNO <sub>3</sub> , D = H <sub>2</sub> SO <sub>4</sub> , E = NaOH, F = MeOH, G = NaHSO <sub>4</sub> , H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , K/E = Zn Ac/NaOH, O = Other Container Code: P = Plastic, A = Amber Glass, V = Vial, G = Glass, B = Bacteria Cup, C = Cube, O = Other, E = Encore, D = BOD Bottle Westboro: Certification No: MA935 Mansfield: Certification No: MA015 Container Type: V Preservative: B						
		Relinquished By:		Received By:		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)
		Date/Time		Date/Time		
		Eric S. ...		Eric S. ...		
		11/17/17 4:31 PM		11/17/17 16:30		
		11/17/17 1631		11/18/17 6:00		

**Laboratory Report**  
**SC41135**

C&S Engineers, Inc.  
 141 Elm Street  
 Suite 100  
 Buffalo, NY 14203

Project: Conventus - 1001 Main Street, NY  
 Project #: N46.001.001

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.  
 All applicable NELAC requirements have been met.

- Massachusetts # M-MA138/MA1110
- Connecticut # PH-0777
- Florida # E87936
- Maine # MA138
- New Hampshire # 2972/2538
- New Jersey # MA011
- New York # 11393
- Pennsylvania # 68-04426/68-02924
- Rhode Island # LAO00348
- USDA # P330-15-00375
- Vermont # VT-11393



Authorized by:  
 Kimberly Laplante  
 Quality Assurance Manager



Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 35 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

*Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

## Sample Summary

**Work Order:** SC41135  
**Project:** Conventus - 1001 Main Street, NY  
**Project Number:** N46.001.001

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SC41135-01	BCP-MW-6	Ground Water	02-Nov-17 10:50	04-Nov-17 10:20
SC41135-02	BCP-MW-1	Ground Water	02-Nov-17 11:35	04-Nov-17 10:20
SC41135-03	BCP-MW-7	Ground Water	02-Nov-17 12:25	04-Nov-17 10:20
SC41135-04	BCP-MW-3	Ground Water	02-Nov-17 13:50	04-Nov-17 10:20
SC41135-05	BCP-MW-5	Ground Water	02-Nov-17 14:45	04-Nov-17 10:20
SC41135-06	Trip Blank	Aqueous	02-Nov-17 00:00	04-Nov-17 10:20

**CASE NARRATIVE:**

Data has been reported to the RDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 2.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

**SW846 8260C**

**Calibration:**

1710027

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Analyte quantified by quadratic equation type calibration.

1,2,4-Trichlorobenzene  
1,2,4-Trimethylbenzene  
1,2-Dibromo-3-chloropropane  
1,3,5-Trimethylbenzene  
1,3-Dichlorobenzene  
Bromoform  
cis-1,3-Dichloropropene  
Ethylbenzene  
Naphthalene  
Styrene  
trans-1,3-Dichloropropene

This affected the following samples:

1718835-BLK1  
1718835-BLK2  
1718835-BS1  
1718835-BS2  
1718835-BSD1  
1718835-BSD2  
1718908-BLK1  
1718908-BS1  
1718908-BS2  
1718908-BSD1  
1718908-BSD2  
BCP-MW-1  
BCP-MW-3  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
S709132-ICV1  
S709835-CCV1  
S709877-CCV1  
Trip Blank

**Laboratory Control Samples:**

1718835 BS/BSD

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## SW846 8260C

### Laboratory Control Samples:

1718835 BS/BSD

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1,1,2-Trichlorotrifluoroethane (Freon 113) percent recoveries (123/135) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias

BCP-MW-1  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
Trip Blank

Bromomethane percent recoveries (65/82) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

BCP-MW-1  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
Trip Blank

Methyl acetate percent recoveries (157/163) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

BCP-MW-1  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
Trip Blank

Methyl acetate percent recoveries (64/93) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

BCP-MW-1  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
Trip Blank

Methylene chloride percent recoveries (126/133) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

BCP-MW-1  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
Trip Blank

1718835 BSD

---

Bromomethane RPD 23% (20%) is outside individual acceptance criteria.

Carbon disulfide RPD 28% (20%) is outside individual acceptance criteria.

Methyl acetate RPD 38% (30%) is outside individual acceptance criteria.

Methylene chloride RPD 27% (20%) is outside individual acceptance criteria.

1718835-BS1

---

## **SW846 8260C**

### **Laboratory Control Samples:**

1718835-BS1

---

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

1,2,4-Trichlorobenzene  
Methyl acetate

1718835-BS2

---

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

1,2,4-Trichlorobenzene  
Methyl acetate

1718835-BSD1

---

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

1,2,4-Trichlorobenzene  
Methyl acetate

1718835-BSD2

---

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

1,2,4-Trichlorobenzene  
Methyl acetate

1718908 BS/BSD

---

1,1-Dichloroethene percent recoveries (130/135) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

BCP-MW-3

Methyl acetate percent recoveries (263/278) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

BCP-MW-3

### **Samples:**

S709835-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,1-Trichloroethane (21.1%)  
Bromomethane (-24.1%)  
Carbon tetrachloride (27.4%)  
Methyl acetate (-36.5%)  
Methylcyclohexane (20.7%)  
Tetrachloroethene (23.4%)  
Trichlorofluoromethane (Freon 11) (24.8%)

**SW846 8260C**

**Samples:**

S709835-CCV1

---

This affected the following samples:

1718835-BLK1  
1718835-BLK2  
1718835-BS1  
1718835-BS2  
1718835-BSD1  
1718835-BSD2  
BCP-MW-1  
BCP-MW-5  
BCP-MW-6  
BCP-MW-7  
Trip Blank

S709877-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (25.3%)  
1,1-Dichloroethene (30.4%)  
Bromomethane (-28.9%)  
Carbon disulfide (20.8%)  
Methylene chloride (24.2%)

This affected the following samples:

1718908-BLK1  
1718908-BS1  
1718908-BS2  
1718908-BSD1  
1718908-BSD2  
BCP-MW-3

SC41135-01                      *BCP-MW-6*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC41135-02                      *BCP-MW-1*

---

Non-target concentration sufficient to be reported as one of the highest TICs.

Tert-Butanol / butyl alcohol

SC41135-03                      *BCP-MW-7*

---

Non-target concentration sufficient to be reported as one of the highest TICs.

Tert-Butanol / butyl alcohol

SC41135-04                      *BCP-MW-3*

---

Non-target concentration sufficient to be reported as one of the highest TICs.

1,2,4-Trimethylbenzene  
1,3,5-Trimethylbenzene  
Naphthalene

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC41135-05                      *BCP-MW-5*

---

**SW846 8260C**

**Samples:**

SC41135-05                      *BCP-MW-5*

---

Non-target concentration sufficient to be reported as one of the highest TICs.

- 1,2,4-Trimethylbenzene
- Naphthalene

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

**SW846 8260C TICs**

**Samples:**

SC41135-02                      *BCP-MW-1*

---

(Tentatively Identified Compounds) reported values are estimated concentrations of non-target analytes identified at greater than 10% of the nearest internal standard.

SC41135-04                      *BCP-MW-3*

---

(Tentatively Identified Compounds) reported values are estimated concentrations of non-target analytes identified at greater than 10% of the nearest internal standard.

SC41135-05                      *BCP-MW-5*

---

(Tentatively Identified Compounds) reported values are estimated concentrations of non-target analytes identified at greater than 10% of the nearest internal standard.

## Sample Acceptance Check Form

Client: C&S Engineers, Inc. - Buffalo, NY  
 Project: Conventus - 1001 Main Street, NY / N46.001.001  
 Work Order: SC41135  
 Sample(s) received on: 11/4/2017

*The following outlines the condition of samples for the attached Chain of Custody upon receipt.*

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody seals present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody seals intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples cooled on ice upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Summary of Hits

Lab ID: SC41135-01

Client ID: BCP-MW-6

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Benzene	774	D	50.0	µg/l	SW846 8260C
Cyclohexane	84.0	J, D	250	µg/l	SW846 8260C
Ethylbenzene	154	D	50.0	µg/l	SW846 8260C
Methylcyclohexane	44.0	J, D	250	µg/l	SW846 8260C
Toluene	2970	D	50.0	µg/l	SW846 8260C
Total Xylenes	1500	D	150	µg/l	SW846 8260C

Lab ID: SC41135-02

Client ID: BCP-MW-1

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Benzene	0.33	J	1.00	µg/l	SW846 8260C
Ethylbenzene	0.40	J	1.00	µg/l	SW846 8260C
Tert-Butanol / butyl alcohol	15.6	NonTR	10.0	µg/l	SW846 8260C
Toluene	1.10		1.00	µg/l	SW846 8260C

Lab ID: SC41135-03

Client ID: BCP-MW-7

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Benzene	2.81		1.00	µg/l	SW846 8260C
Cyclohexane	0.99	J	5.00	µg/l	SW846 8260C
Ethylbenzene	0.45	J	1.00	µg/l	SW846 8260C
Isopropylbenzene	0.38	J	1.00	µg/l	SW846 8260C
Tert-Butanol / butyl alcohol	37.6	NonTR	10.0	µg/l	SW846 8260C
Toluene	0.61	J	1.00	µg/l	SW846 8260C

Lab ID: SC41135-04

Client ID: BCP-MW-3

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	737	NonTR	10.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	133	NonTR	10.0	µg/l	SW846 8260C
Benzene	364	D	10.0	µg/l	SW846 8260C
Cyclohexane	60.5	D	50.0	µg/l	SW846 8260C
Ethylbenzene	384	D	10.0	µg/l	SW846 8260C
Isopropylbenzene	8.70	J, D	10.0	µg/l	SW846 8260C
Methyl acetate	31.9	J, D	50.0	µg/l	SW846 8260C
Methylcyclohexane	33.4	J, D	50.0	µg/l	SW846 8260C
Naphthalene	357	NonTR	10.0	µg/l	SW846 8260C
Toluene	34.8	D	10.0	µg/l	SW846 8260C
Total Xylenes	930	D	30.0	µg/l	SW846 8260C

Lab ID: SC41135-05

Client ID: BCP-MW-5

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	2490	NonTR	100	µg/l	SW846 8260C
Benzene	283	D	100	µg/l	SW846 8260C
Cyclohexane	238	J, D	500	µg/l	SW846 8260C
Ethylbenzene	1660	D	100	µg/l	SW846 8260C
Methylcyclohexane	106	J, D	500	µg/l	SW846 8260C
Naphthalene	1030	NonTR	100	µg/l	SW846 8260C
Toluene	82.0	J, D	100	µg/l	SW846 8260C
Total Xylenes	5610	D	300	µg/l	SW846 8260C

*Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.*

## Sample Identification

BCP-MW-6  
SC41135-01Client Project #  
N46.001.001Matrix  
Ground WaterCollection Date/Time  
02-Nov-17 10:50Received  
04-Nov-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0	U, D	µg/l	50.0	26.6	50	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
67-64-1	Acetone	< 500	U, D	µg/l	500	40.2	50	"	"	"	"	"	X
71-43-2	Benzene	774	D	µg/l	50.0	14.2	50	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 25.0	U, D	µg/l	25.0	20.8	50	"	"	"	"	"	X
75-25-2	Bromoform	< 50.0	U, D	µg/l	50.0	21.2	50	"	"	"	"	"	X
74-83-9	Bromomethane	< 100	U, D	µg/l	100	44.8	50	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 100	U, D	µg/l	100	53.5	50	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 100	U, D	µg/l	100	20.6	50	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 50.0	U, D	µg/l	50.0	21.8	50	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 50.0	U, D	µg/l	50.0	12.4	50	"	"	"	"	"	X
75-00-3	Chloroethane	< 100	U, D	µg/l	100	29.4	50	"	"	"	"	"	X
67-66-3	Chloroform	< 50.0	U, D	µg/l	50.0	16.3	50	"	"	"	"	"	X
74-87-3	Chloromethane	< 100	U, D	µg/l	100	18.4	50	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 100	U, D	µg/l	100	43.2	50	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 25.0	U, D	µg/l	25.0	15.8	50	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 25.0	U, D	µg/l	25.0	10.1	50	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 50.0	U, D	µg/l	50.0	13.8	50	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 50.0	U, D	µg/l	50.0	15.7	50	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 50.0	U, D	µg/l	50.0	13.6	50	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 100	U, D	µg/l	100	29.2	50	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 50.0	U, D	µg/l	50.0	16.2	50	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 50.0	U, D	µg/l	50.0	13.8	50	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 50.0	U, D	µg/l	50.0	34.6	50	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 50.0	U, D	µg/l	50.0	16.4	50	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 50.0	U, D	µg/l	50.0	18.8	50	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 50.0	U, D	µg/l	50.0	14.6	50	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 25.0	U, D	µg/l	25.0	18.0	50	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 25.0	U, D	µg/l	25.0	17.4	50	"	"	"	"	"	X
100-41-4	Ethylbenzene	154	D	µg/l	50.0	16.4	50	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 100	U, D	µg/l	100	26.4	50	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 50.0	U, D	µg/l	50.0	18.0	50	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 50.0	U, D	µg/l	50.0	11.8	50	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 100	U, D	µg/l	100	25.8	50	"	"	"	"	"	X
75-09-2	Methylene chloride	< 100	U, D	µg/l	100	33.0	50	"	"	"	"	"	X
100-42-5	Styrene	< 50.0	U, D	µg/l	50.0	20.2	50	"	"	"	"	"	X
79-34-5	1,1,1,2-Tetrachloroethane	< 25.0	U, D	µg/l	25.0	16.5	50	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 50.0	U, D	µg/l	50.0	28.5	50	"	"	"	"	"	X
108-88-3	Toluene	2,970	D	µg/l	50.0	15.0	50	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 50.0	U, D	µg/l	50.0	18.9	50	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 50.0	U, D	µg/l	50.0	25.4	50	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 50.0	U, D	µg/l	50.0	16.5	50	"	"	"	"	"	X
79-01-6	Trichloroethene	< 50.0	U, D	µg/l	50.0	24.8	50	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

BCP-MW-6  
SC41135-01

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 10:50

Received  
04-Nov-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Compounds by SW846 8260													
GS1													
75-69-4	Trichlorofluoromethane (Freon 11)	< 50.0	U, D	µg/l	50.0	24.4	50	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
75-01-4	Vinyl chloride	< 50.0	U, D	µg/l	50.0	23.6	50	"	"	"	"	"	X
1330-20-7	Total Xylenes	1,500	D	µg/l	150	150	50	"	"	"	"	"	X
110-82-7	Cyclohexane	84.0	J, D	µg/l	250	39.4	50	"	"	"	"	"	X
79-20-9	Methyl acetate	< 250	U, D	µg/l	250	32.4	50	"	"	"	"	"	X
108-87-2	Methylcyclohexane	44.0	J, D	µg/l	250	37.1	50	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	104			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	95			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	99			70-130 %			"	"	"	"	"	

Tentatively Identified Compounds by GC/MS

	Tentatively Identified Compounds	None found		µg/l			50	SW846 8260C TICs	"	"	GMA	"	
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Sample Identification

BCP-MW-1  
SC41135-02

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 11:35

Received  
04-Nov-17

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	U	µg/l	1.00	0.53	1	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
67-64-1	Acetone	< 10.0	U	µg/l	10.0	0.80	1	"	"	"	"	"	X
71-43-2	Benzene	0.33	J	µg/l	1.00	0.28	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50	U	µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00	U	µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00	U	µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00	U	µg/l	2.00	1.07	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00	U	µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00	U	µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00	U	µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00	U	µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00	U	µg/l	2.00	0.37	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00	U	µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50	U	µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50	U	µg/l	0.50	0.20	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00	U	µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00	U	µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00	U	µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00	U	µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00	U	µg/l	1.00	0.29	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50	U	µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50	U	µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	0.40	J	µg/l	1.00	0.33	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00	U	µg/l	2.00	0.53	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 1.00	U	µg/l	1.00	0.36	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00	U	µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00	U	µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00	U	µg/l	2.00	0.66	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00	U	µg/l	1.00	0.40	1	"	"	"	"	"	X
79-34-5	1,1,1,2-Tetrachloroethane	< 0.50	U	µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00	U	µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	1.10	J	µg/l	1.00	0.30	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00	U	µg/l	1.00	0.38	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00	U	µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00	U	µg/l	1.00	0.50	1	"	"	"	"	"	X

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Sample Identification

BCP-MW-1  
SC41135-02

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 11:35

Received  
04-Nov-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Volatile Organic Compounds by SW846 8260

75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00	U	µg/l	1.00	0.49	1	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
75-01-4	Vinyl chloride	< 1.00	U	µg/l	1.00	0.47	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	15.6	NonTR G TIC	µg/l	10.0	5.90	1	"	"	"	"	"	X
1330-20-7	Total Xylenes	< 3.00	U	µg/l	3.00	3.00	1	"	"	"	"	"	X
110-82-7	Cyclohexane	< 5.00	U	µg/l	5.00	0.79	1	"	"	"	"	"	X
79-20-9	Methyl acetate	< 5.00	U	µg/l	5.00	0.65	1	"	"	"	"	"	X
108-87-2	Methylcyclohexane	< 5.00	U	µg/l	5.00	0.74	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	103			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	103			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	99			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %			"	"	"	"	"	

Tentatively Identified Compounds by GC/MS

J N

79-29-8	Butane, 2,3-dimethyl-	18		µg/l			1	SW846 8260C TICs	"	"	GMA	"	
004850-28-6	Cyclopentane, 1,2,4-trimeth...	7.5		µg/l			1	"	"	"	"	"	
565-59-3	Pentane, 2,3-dimethyl-	15		µg/l			1	"	"	"	"	"	

Sample Identification

BCP-MW-7  
SC41135-03

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 12:25

Received  
04-Nov-17

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	U	µg/l	1.00	0.53	1	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
67-64-1	Acetone	< 10.0	U	µg/l	10.0	0.80	1	"	"	"	"	"	X
71-43-2	Benzene	2.81		µg/l	1.00	0.28	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50	U	µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00	U	µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00	U	µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00	U	µg/l	2.00	1.07	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00	U	µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00	U	µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00	U	µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00	U	µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00	U	µg/l	2.00	0.37	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00	U	µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50	U	µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50	U	µg/l	0.50	0.20	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00	U	µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00	U	µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00	U	µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00	U	µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00	U	µg/l	1.00	0.29	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50	U	µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50	U	µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	0.45	J	µg/l	1.00	0.33	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00	U	µg/l	2.00	0.53	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	0.38	J	µg/l	1.00	0.36	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00	U	µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00	U	µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00	U	µg/l	2.00	0.66	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00	U	µg/l	1.00	0.40	1	"	"	"	"	"	X
79-34-5	1,1,1,2-Tetrachloroethane	< 0.50	U	µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00	U	µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	0.61	J	µg/l	1.00	0.30	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00	U	µg/l	1.00	0.38	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00	U	µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00	U	µg/l	1.00	0.50	1	"	"	"	"	"	X

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Sample IdentificationBCP-MW-7  
SC41135-03Client Project #  
N46.001.001Matrix  
Ground WaterCollection Date/Time  
02-Nov-17 12:25Received  
04-Nov-17

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
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**Volatile Organic Compounds**Volatile Organic Compounds by SW846 8260

75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00	U	µg/l	1.00	0.49	1	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
75-01-4	Vinyl chloride	< 1.00	U	µg/l	1.00	0.47	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	37.6	NonTR G TIC	µg/l	10.0	5.90	1	"	"	"	"	"	X
1330-20-7	Total Xylenes	< 3.00	U	µg/l	3.00	3.00	1	"	"	"	"	"	X
110-82-7	Cyclohexane	0.99	J	µg/l	5.00	0.79	1	"	"	"	"	"	X
79-20-9	Methyl acetate	< 5.00	U	µg/l	5.00	0.65	1	"	"	"	"	"	X
108-87-2	Methylcyclohexane	< 5.00	U	µg/l	5.00	0.74	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	105			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	103			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	100			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %			"	"	"	"	"	

Tentatively Identified Compounds by GC/MS

Tentatively Identified Compounds	None found			µg/l			1	SW846 8260C TICs	"	"	GMA	"	
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Sample Identification

BCP-MW-3  
SC41135-04

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 13:50

Received  
04-Nov-17

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
GS1													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 10.0	U, D	µg/l	10.0	5.32	10	SW846 8260C	08-Nov-17	08-Nov-17	GMA	1718908	X
67-64-1	Acetone	< 100	U, D	µg/l	100	8.04	10	"	"	"	"	"	X
71-43-2	Benzene	364	D	µg/l	10.0	2.84	10	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 5.00	U, D	µg/l	5.00	4.17	10	"	"	"	"	"	X
75-25-2	Bromoform	< 10.0	U, D	µg/l	10.0	4.25	10	"	"	"	"	"	X
74-83-9	Bromomethane	< 20.0	U, D	µg/l	20.0	8.96	10	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 20.0	U, D	µg/l	20.0	10.7	10	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 20.0	U, D	µg/l	20.0	4.12	10	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 10.0	U, D	µg/l	10.0	4.37	10	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 10.0	U, D	µg/l	10.0	2.49	10	"	"	"	"	"	X
75-00-3	Chloroethane	< 20.0	U, D	µg/l	20.0	5.88	10	"	"	"	"	"	X
67-66-3	Chloroform	< 10.0	U, D	µg/l	10.0	3.26	10	"	"	"	"	"	X
74-87-3	Chloromethane	< 20.0	U, D	µg/l	20.0	3.68	10	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 20.0	U, D	µg/l	20.0	8.63	10	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 5.00	U, D	µg/l	5.00	3.17	10	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 5.00	U, D	µg/l	5.00	2.02	10	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 10.0	U, D	µg/l	10.0	2.77	10	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 10.0	U, D	µg/l	10.0	3.14	10	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 10.0	U, D	µg/l	10.0	2.72	10	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 20.0	U, D	µg/l	20.0	5.84	10	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 10.0	U, D	µg/l	10.0	3.23	10	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 10.0	U, D	µg/l	10.0	2.77	10	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 10.0	U, D	µg/l	10.0	6.93	10	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 10.0	U, D	µg/l	10.0	3.27	10	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 10.0	U, D	µg/l	10.0	3.77	10	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 10.0	U, D	µg/l	10.0	2.92	10	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 5.00	U, D	µg/l	5.00	3.59	10	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 5.00	U, D	µg/l	5.00	3.47	10	"	"	"	"	"	X
100-41-4	Ethylbenzene	384	D	µg/l	10.0	3.29	10	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 20.0	U, D	µg/l	20.0	5.28	10	"	"	"	"	"	X
98-82-8	Isopropylbenzene	8.70	J, D	µg/l	10.0	3.60	10	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 10.0	U, D	µg/l	10.0	2.37	10	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 20.0	U, D	µg/l	20.0	5.15	10	"	"	"	"	"	X
75-09-2	Methylene chloride	< 20.0	U, D	µg/l	20.0	6.61	10	"	"	"	"	"	X
91-20-3	Naphthalene	357	NonTR G TIC, D	µg/l	10.0	3.51	10	"	"	"	"	"	X
100-42-5	Styrene	< 10.0	U, D	µg/l	10.0	4.05	10	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 5.00	U, D	µg/l	5.00	3.30	10	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 10.0	U, D	µg/l	10.0	5.70	10	"	"	"	"	"	X
108-88-3	Toluene	34.8	D	µg/l	10.0	2.99	10	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 10.0	U, D	µg/l	10.0	3.78	10	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 10.0	U, D	µg/l	10.0	5.09	10	"	"	"	"	"	X

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Sample Identification

BCP-MW-3  
SC41135-04

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 13:50

Received  
04-Nov-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Compounds by SW846 8260													
GS1													
79-00-5	1,1,2-Trichloroethane	< 10.0	U, D	µg/l	10.0	3.30	10	SW846 8260C	08-Nov-17	08-Nov-17	GMA	1718908	X
79-01-6	Trichloroethene	< 10.0	U, D	µg/l	10.0	4.97	10	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 10.0	U, D	µg/l	10.0	4.87	10	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	737	NonTR G TIC, D	µg/l	10.0	3.55	10	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	133	NonTR G TIC, D	µg/l	10.0	4.31	10	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 10.0	U, D	µg/l	10.0	4.72	10	"	"	"	"	"	X
1330-20-7	Total Xylenes	930	D	µg/l	30.0	30.0	10	"	"	"	"	"	X
110-82-7	Cyclohexane	60.5	D	µg/l	50.0	7.87	10	"	"	"	"	"	X
79-20-9	Methyl acetate	31.9	J, D	µg/l	50.0	6.47	10	"	"	"	"	"	X
108-87-2	Methylcyclohexane	33.4	J, D	µg/l	50.0	7.42	10	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	105			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	102			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	96			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %			"	"	"	"	"	

Tentatively Identified Compounds by GC/MS

J N													
	3-Phenylbut-1-ene	160	D	µg/l			10	SW846 8260C TICs	"	"	GMA	"	
95-36-3	Benzene, 1,2,3-trimethyl-	150	D	µg/l			10	"	"	"	"	"	
611-14-3	Benzene, 1-ethyl-2-methyl-	190	D	µg/l			10	"	"	"	"	"	
622-96-8	Benzene, 1-ethyl-4-methyl-	270	D	µg/l			10	"	"	"	"	"	
000527-84-4	Benzene, 1-methyl-2-(1-meth...	150	D	µg/l			10	"	"	"	"	"	
96-37-7	Cyclopentane, methyl-	140	D	µg/l			10	"	"	"	"	"	
000930-18-7	Cyclopropane, 1,2-dimethyl-...	99	D	µg/l			10	"	"	"	"	"	
496-11-7	Indane	200	D	µg/l			10	"	"	"	"	"	
109-66-0	Pentane	110	D	µg/l			10	"	"	"	"	"	

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Sample Identification

BCP-MW-5  
SC41135-05

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 14:45

Received  
04-Nov-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Compounds by SW846 8260 GS1													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 100	U, D	µg/l	100	53.2	100	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
67-64-1	Acetone	< 1000	U, D	µg/l	1000	80.4	100	"	"	"	"	"	X
71-43-2	Benzene	283	D	µg/l	100	28.4	100	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 50.0	U, D	µg/l	50.0	41.7	100	"	"	"	"	"	X
75-25-2	Bromoform	< 100	U, D	µg/l	100	42.5	100	"	"	"	"	"	X
74-83-9	Bromomethane	< 200	U, D	µg/l	200	89.6	100	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 200	U, D	µg/l	200	107	100	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 200	U, D	µg/l	200	41.2	100	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 100	U, D	µg/l	100	43.7	100	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 100	U, D	µg/l	100	24.9	100	"	"	"	"	"	X
75-00-3	Chloroethane	< 200	U, D	µg/l	200	58.8	100	"	"	"	"	"	X
67-66-3	Chloroform	< 100	U, D	µg/l	100	32.6	100	"	"	"	"	"	X
74-87-3	Chloromethane	< 200	U, D	µg/l	200	36.8	100	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 200	U, D	µg/l	200	86.3	100	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 50.0	U, D	µg/l	50.0	31.7	100	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 50.0	U, D	µg/l	50.0	20.2	100	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 100	U, D	µg/l	100	27.7	100	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 100	U, D	µg/l	100	31.4	100	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 100	U, D	µg/l	100	27.2	100	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 200	U, D	µg/l	200	58.4	100	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 100	U, D	µg/l	100	32.3	100	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 100	U, D	µg/l	100	27.7	100	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 100	U, D	µg/l	100	69.3	100	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 100	U, D	µg/l	100	32.7	100	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 100	U, D	µg/l	100	37.7	100	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 100	U, D	µg/l	100	29.2	100	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 50.0	U, D	µg/l	50.0	35.9	100	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 50.0	U, D	µg/l	50.0	34.7	100	"	"	"	"	"	X
100-41-4	Ethylbenzene	1,660	D	µg/l	100	32.9	100	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 200	U, D	µg/l	200	52.8	100	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 100	U, D	µg/l	100	36.0	100	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 100	U, D	µg/l	100	23.7	100	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 200	U, D	µg/l	200	51.5	100	"	"	"	"	"	X
75-09-2	Methylene chloride	< 200	U, D	µg/l	200	66.1	100	"	"	"	"	"	X
91-20-3	Naphthalene	1,030	NonTR G TIC, D	µg/l	100	35.1	100	"	"	"	"	"	X
100-42-5	Styrene	< 100	U, D	µg/l	100	40.5	100	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 50.0	U, D	µg/l	50.0	33.0	100	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 100	U, D	µg/l	100	57.0	100	"	"	"	"	"	X
108-88-3	Toluene	82.0	J, D	µg/l	100	29.9	100	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 100	U, D	µg/l	100	37.8	100	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 100	U, D	µg/l	100	50.9	100	"	"	"	"	"	X

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Sample Identification

BCP-MW-5  
SC41135-05

Client Project #  
N46.001.001

Matrix  
Ground Water

Collection Date/Time  
02-Nov-17 14:45

Received  
04-Nov-17

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
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**Volatile Organic Compounds**

Volatile Organic Compounds by SW846 8260

GS1

79-00-5	1,1,2-Trichloroethane	< 100	U, D	µg/l	100	33.0	100	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
79-01-6	Trichloroethene	< 100	U, D	µg/l	100	49.7	100	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 100	U, D	µg/l	100	48.7	100	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	<b>2,490</b>	NonTR G TIC, D	µg/l	100	35.5	100	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 100	U, D	µg/l	100	47.2	100	"	"	"	"	"	X
1330-20-7	Total Xylenes	<b>5,610</b>	D	µg/l	300	300	100	"	"	"	"	"	X
110-82-7	Cyclohexane	<b>238</b>	J, D	µg/l	500	78.7	100	"	"	"	"	"	X
79-20-9	Methyl acetate	< 500	U, D	µg/l	500	64.7	100	"	"	"	"	"	X
108-87-2	Methylcyclohexane	<b>106</b>	J, D	µg/l	500	74.2	100	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	104			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	104			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	96			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	103			70-130 %			"	"	"	"	"	

Tentatively Identified Compounds by GC/MS

J N

95-36-3	Benzene, 1,2,3-trimethyl-	<b>630</b>	D	µg/l			100	SW846 8260C TICs	"	"	GMA	"	
611-14-3	Benzene, 1-ethyl-2-methyl-	<b>840</b>	D	µg/l			100	"	"	"	"	"	
96-37-7	Cyclopentane, methyl-	<b>550</b>	D	µg/l			100	"	"	"	"	"	
496-11-7	Indane	<b>550</b>	D	µg/l			100	"	"	"	"	"	

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Sample Identification

**Trip Blank**  
SC41135-06

Client Project #  
N46.001.001

Matrix  
Aqueous

Collection Date/Time  
02-Nov-17 00:00

Received  
04-Nov-17

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	U	µg/l	1.00	0.53	1	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
67-64-1	Acetone	< 10.0	U	µg/l	10.0	0.80	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50	U	µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00	U	µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00	U	µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00	U	µg/l	2.00	1.07	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00	U	µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00	U	µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00	U	µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00	U	µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00	U	µg/l	2.00	0.37	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00	U	µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50	U	µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50	U	µg/l	0.50	0.20	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00	U	µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00	U	µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00	U	µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00	U	µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00	U	µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00	U	µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00	U	µg/l	1.00	0.29	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50	U	µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50	U	µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00	U	µg/l	2.00	0.53	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 1.00	U	µg/l	1.00	0.36	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00	U	µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00	U	µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00	U	µg/l	2.00	0.66	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00	U	µg/l	1.00	0.40	1	"	"	"	"	"	X
79-34-5	1,1,1,2-Tetrachloroethane	< 0.50	U	µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00	U	µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00	U	µg/l	1.00	0.30	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00	U	µg/l	1.00	0.38	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.00	U	µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00	U	µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00	U	µg/l	1.00	0.50	1	"	"	"	"	"	X

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Sample Identification

Trip Blank  
SC41135-06

Client Project #  
N46.001.001

Matrix  
Aqueous

Collection Date/Time  
02-Nov-17 00:00

Received  
04-Nov-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Volatile Organic Compounds by SW846 8260

75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00	U	µg/l	1.00	0.49	1	SW846 8260C	07-Nov-17	07-Nov-17	GMA	1718835	X
75-01-4	Vinyl chloride	< 1.00	U	µg/l	1.00	0.47	1	"	"	"	"	"	X
1330-20-7	Total Xylenes	< 3.00	U	µg/l	3.00	3.00	1	"	"	"	"	"	X
110-82-7	Cyclohexane	< 5.00	U	µg/l	5.00	0.79	1	"	"	"	"	"	X
79-20-9	Methyl acetate	< 5.00	U	µg/l	5.00	0.65	1	"	"	"	"	"	X
108-87-2	Methylcyclohexane	< 5.00	U	µg/l	5.00	0.74	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	104			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	102			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	96			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	100			70-130 %			"	"	"	"	"	

Tentatively Identified Compounds by GC/MS

	Tentatively Identified Compounds	None found		µg/l			1	SW846 8260C TICs	"	"	GMA	"	
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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>Blank (1718835-BLK1)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	U	µg/l	1.00						
Acetone	< 10.0	U	µg/l	10.0						
Benzene	< 1.00	U	µg/l	1.00						
Bromodichloromethane	< 0.50	U	µg/l	0.50						
Bromoform	< 1.00	U	µg/l	1.00						
Bromomethane	< 2.00	U	µg/l	2.00						
2-Butanone (MEK)	< 2.00	U	µg/l	2.00						
Carbon disulfide	< 2.00	U	µg/l	2.00						
Carbon tetrachloride	< 1.00	U	µg/l	1.00						
Chlorobenzene	< 1.00	U	µg/l	1.00						
Chloroethane	< 2.00	U	µg/l	2.00						
Chloroform	< 1.00	U	µg/l	1.00						
Chloromethane	< 2.00	U	µg/l	2.00						
1,2-Dibromo-3-chloropropane	< 2.00	U	µg/l	2.00						
Dibromochloromethane	< 0.50	U	µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50	U	µg/l	0.50						
1,2-Dichlorobenzene	< 1.00	U	µg/l	1.00						
1,3-Dichlorobenzene	< 1.00	U	µg/l	1.00						
1,4-Dichlorobenzene	< 1.00	U	µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00	U	µg/l	2.00						
1,1-Dichloroethane	< 1.00	U	µg/l	1.00						
1,2-Dichloroethane	< 1.00	U	µg/l	1.00						
1,1-Dichloroethene	< 1.00	U	µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00	U	µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00	U	µg/l	1.00						
1,2-Dichloropropane	< 1.00	U	µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50	U	µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50	U	µg/l	0.50						
Ethylbenzene	< 1.00	U	µg/l	1.00						
2-Hexanone (MBK)	< 2.00	U	µg/l	2.00						
Isopropylbenzene	< 1.00	U	µg/l	1.00						
Methyl tert-butyl ether	< 1.00	U	µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 2.00	U	µg/l	2.00						
Methylene chloride	< 2.00	U	µg/l	2.00						
Styrene	< 1.00	U	µg/l	1.00						
1,1,2,2-Tetrachloroethane	< 0.50	U	µg/l	0.50						
Tetrachloroethene	< 1.00	U	µg/l	1.00						
Toluene	< 1.00	U	µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00	U	µg/l	1.00						
1,1,1-Trichloroethane	< 1.00	U	µg/l	1.00						
1,1,2-Trichloroethane	< 1.00	U	µg/l	1.00						
Trichloroethene	< 1.00	U	µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00	U	µg/l	1.00						
Vinyl chloride	< 1.00	U	µg/l	1.00						
Total Xylenes	< 3.00	U	µg/l	3.00						
Cyclohexane	< 5.00	U	µg/l	5.00						
Methyl acetate	< 5.00	U	µg/l	5.00						
Methylcyclohexane	< 5.00	U	µg/l	5.00						
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.3</i>		<i>µg/l</i>		<i>50.0</i>		<i>101</i>	<i>70-130</i>		
<i>Surrogate: Toluene-d8</i>	<i>50.9</i>		<i>µg/l</i>		<i>50.0</i>		<i>102</i>	<i>70-130</i>		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>Blank (1718835-BLK1)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
Surrogate: 1,2-Dichloroethane-d4	48.8		µg/l		50.0		98	70-130		
Surrogate: Dibromofluoromethane	50.3		µg/l		50.0		101	70-130		
<b>Blank (1718835-BLK2)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.00	U, D	µg/l	5.00						
Acetone	< 50.0	U, D	µg/l	50.0						
Benzene	< 5.00	U, D	µg/l	5.00						
Bromodichloromethane	< 2.50	U, D	µg/l	2.50						
Bromoform	< 5.00	U, D	µg/l	5.00						
Bromomethane	< 10.0	U, D	µg/l	10.0						
2-Butanone (MEK)	< 10.0	U, D	µg/l	10.0						
Carbon disulfide	< 10.0	U, D	µg/l	10.0						
Carbon tetrachloride	< 5.00	U, D	µg/l	5.00						
Chlorobenzene	< 5.00	U, D	µg/l	5.00						
Chloroethane	< 10.0	U, D	µg/l	10.0						
Chloroform	<b>2.95</b>	J, D	µg/l	5.00						
Chloromethane	< 10.0	U, D	µg/l	10.0						
1,2-Dibromo-3-chloropropane	< 10.0	U, D	µg/l	10.0						
Dibromochloromethane	< 2.50	U, D	µg/l	2.50						
1,2-Dibromoethane (EDB)	< 2.50	U, D	µg/l	2.50						
1,2-Dichlorobenzene	< 5.00	U, D	µg/l	5.00						
1,3-Dichlorobenzene	< 5.00	U, D	µg/l	5.00						
1,4-Dichlorobenzene	< 5.00	U, D	µg/l	5.00						
Dichlorodifluoromethane (Freon12)	< 10.0	U, D	µg/l	10.0						
1,1-Dichloroethane	< 5.00	U, D	µg/l	5.00						
1,2-Dichloroethane	< 5.00	U, D	µg/l	5.00						
1,1-Dichloroethene	< 5.00	U, D	µg/l	5.00						
cis-1,2-Dichloroethene	< 5.00	U, D	µg/l	5.00						
trans-1,2-Dichloroethene	< 5.00	U, D	µg/l	5.00						
1,2-Dichloropropane	< 5.00	U, D	µg/l	5.00						
cis-1,3-Dichloropropene	< 2.50	U, D	µg/l	2.50						
trans-1,3-Dichloropropene	< 2.50	U, D	µg/l	2.50						
Ethylbenzene	< 5.00	U, D	µg/l	5.00						
2-Hexanone (MBK)	< 10.0	U, D	µg/l	10.0						
Isopropylbenzene	< 5.00	U, D	µg/l	5.00						
Methyl tert-butyl ether	< 5.00	U, D	µg/l	5.00						
4-Methyl-2-pentanone (MIBK)	< 10.0	U, D	µg/l	10.0						
Methylene chloride	< 10.0	U, D	µg/l	10.0						
Styrene	< 5.00	U, D	µg/l	5.00						
1,1,2,2-Tetrachloroethane	< 2.50	U, D	µg/l	2.50						
Tetrachloroethene	< 5.00	U, D	µg/l	5.00						
Toluene	< 5.00	U, D	µg/l	5.00						
1,2,4-Trichlorobenzene	<b>5.55</b>	D	µg/l	5.00						
1,1,1-Trichloroethane	< 5.00	U, D	µg/l	5.00						
1,1,2-Trichloroethane	< 5.00	U, D	µg/l	5.00						
Trichloroethene	< 5.00	U, D	µg/l	5.00						
Trichlorofluoromethane (Freon 11)	< 5.00	U, D	µg/l	5.00						
Vinyl chloride	< 5.00	U, D	µg/l	5.00						
Total Xylenes	< 15.0	U, D	µg/l	15.0						
Cyclohexane	< 25.0	U, D	µg/l	25.0						
Methyl acetate	<b>115</b>	D	µg/l	25.0						

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>Blank (1718835-BLK2)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
Methylcyclohexane	< 25.0	U, D	µg/l	25.0						
<i>Surrogate: 4-Bromofluorobenzene</i>	51.3		µg/l		50.0		103	70-130		
<i>Surrogate: Toluene-d8</i>	51.0		µg/l		50.0		102	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.3		µg/l		50.0		99	70-130		
<i>Surrogate: Dibromofluoromethane</i>	51.2		µg/l		50.0		102	70-130		
<b>LCS (1718835-BS1)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.4		µg/l		20.0		102	70-130		
Acetone	18.8		µg/l		20.0		94	70-130		
Benzene	23.8		µg/l		20.0		119	70-130		
Bromodichloromethane	22.8		µg/l		20.0		114	70-130		
Bromoform	21.4		µg/l		20.0		107	70-130		
Bromomethane	15.2		µg/l		20.0		76	70-130		
2-Butanone (MEK)	18.0		µg/l		20.0		90	70-130		
Carbon disulfide	17.3		µg/l		20.0		86	70-130		
Carbon tetrachloride	25.5		µg/l		20.0		127	70-130		
Chlorobenzene	22.0		µg/l		20.0		110	70-130		
Chloroethane	21.6		µg/l		20.0		108	70-130		
Chloroform	22.4		µg/l		20.0		112	70-130		
Chloromethane	16.9		µg/l		20.0		85	70-130		
1,2-Dibromo-3-chloropropane	18.9		µg/l		20.0		95	70-130		
Dibromochloromethane	23.5		µg/l		20.0		118	70-130		
1,2-Dibromoethane (EDB)	22.2		µg/l		20.0		111	70-130		
1,2-Dichlorobenzene	21.7		µg/l		20.0		109	70-130		
1,3-Dichlorobenzene	20.8		µg/l		20.0		104	70-130		
1,4-Dichlorobenzene	20.8		µg/l		20.0		104	70-130		
Dichlorodifluoromethane (Freon12)	23.1		µg/l		20.0		116	70-130		
1,1-Dichloroethane	23.0		µg/l		20.0		115	70-130		
1,2-Dichloroethane	22.5		µg/l		20.0		112	70-130		
1,1-Dichloroethene	23.6		µg/l		20.0		118	70-130		
cis-1,2-Dichloroethene	23.2		µg/l		20.0		116	70-130		
trans-1,2-Dichloroethene	23.6		µg/l		20.0		118	70-130		
1,2-Dichloropropane	21.9		µg/l		20.0		109	70-130		
cis-1,3-Dichloropropene	21.1		µg/l		20.0		106	70-130		
trans-1,3-Dichloropropene	22.8		µg/l		20.0		114	70-130		
Ethylbenzene	21.3		µg/l		20.0		107	70-130		
2-Hexanone (MBK)	19.5		µg/l		20.0		98	70-130		
Isopropylbenzene	22.5		µg/l		20.0		112	70-130		
Methyl tert-butyl ether	21.5		µg/l		20.0		107	70-130		
4-Methyl-2-pentanone (MIBK)	19.6		µg/l		20.0		98	70-130		
Methylene chloride	19.0		µg/l		20.0		95	70-130		
Styrene	20.4		µg/l		20.0		102	70-130		
1,1,2,2-Tetrachloroethane	20.3		µg/l		20.0		101	70-130		
Tetrachloroethene	24.7		µg/l		20.0		123	70-130		
Toluene	23.3		µg/l		20.0		116	70-130		
1,2,4-Trichlorobenzene	19.0	B	µg/l		20.0		95	70-130		
1,1,1-Trichloroethane	24.2		µg/l		20.0		121	70-130		
1,1,2-Trichloroethane	21.6		µg/l		20.0		108	70-130		
Trichloroethene	23.0		µg/l		20.0		115	70-130		
Trichlorofluoromethane (Freon 11)	25.0		µg/l		20.0		125	70-130		
Vinyl chloride	21.8		µg/l		20.0		109	70-130		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>LCS (1718835-BS1)</b>					<b>Prepared &amp; Analyzed: 07-Nov-17</b>					
Cyclohexane	23.4		µg/l		20.0		117	70-130		
Methyl acetate	12.7	QM9, B	µg/l		20.0		64	70-130		
Methylcyclohexane	24.1		µg/l		20.0		121	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	51.2		µg/l		50.0		102	70-130		
<i>Surrogate: Toluene-d8</i>	52.7		µg/l		50.0		105	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	48.5		µg/l		50.0		97	70-130		
<i>Surrogate: Dibromofluoromethane</i>	50.2		µg/l		50.0		100	70-130		
<b>LCS (1718835-BS2)</b>					<b>Prepared &amp; Analyzed: 07-Nov-17</b>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	24.7	D	µg/l		20.0		123	70-130		
Acetone	20.0	D	µg/l		20.0		100	70-130		
Benzene	22.1	D	µg/l		20.0		111	70-130		
Bromodichloromethane	21.3	D	µg/l		20.0		106	70-130		
Bromoform	20.7	D	µg/l		20.0		103	70-130		
Bromomethane	13.0	D	µg/l		20.0		65	70-130		
2-Butanone (MEK)	19.5	D	µg/l		20.0		98	70-130		
Carbon disulfide	24.1	D	µg/l		20.0		120	70-130		
Carbon tetrachloride	23.2	D	µg/l		20.0		116	70-130		
Chlorobenzene	21.0	D	µg/l		20.0		105	70-130		
Chloroethane	19.7	D	µg/l		20.0		98	70-130		
Chloroform	22.3	D	µg/l		20.0		112	70-130		
Chloromethane	16.4	D	µg/l		20.0		82	70-130		
1,2-Dibromo-3-chloropropane	19.3	D	µg/l		20.0		96	70-130		
Dibromochloromethane	22.1	D	µg/l		20.0		111	70-130		
1,2-Dibromoethane (EDB)	21.0	D	µg/l		20.0		105	70-130		
1,2-Dichlorobenzene	20.8	D	µg/l		20.0		104	70-130		
1,3-Dichlorobenzene	20.4	D	µg/l		20.0		102	70-130		
1,4-Dichlorobenzene	20.4	D	µg/l		20.0		102	70-130		
Dichlorodifluoromethane (Freon12)	21.5	D	µg/l		20.0		108	70-130		
1,1-Dichloroethane	21.6	D	µg/l		20.0		108	70-130		
1,2-Dichloroethane	21.8	D	µg/l		20.0		109	70-130		
1,1-Dichloroethene	25.2	D	µg/l		20.0		126	70-130		
cis-1,2-Dichloroethene	22.2	D	µg/l		20.0		111	70-130		
trans-1,2-Dichloroethene	21.6	D	µg/l		20.0		108	70-130		
1,2-Dichloropropane	20.6	D	µg/l		20.0		103	70-130		
cis-1,3-Dichloropropene	21.7	D	µg/l		20.0		108	70-130		
trans-1,3-Dichloropropene	22.4	D	µg/l		20.0		112	70-130		
Ethylbenzene	20.5	D	µg/l		20.0		102	70-130		
2-Hexanone (MBK)	19.5	D	µg/l		20.0		97	70-130		
Isopropylbenzene	21.2	D	µg/l		20.0		106	70-130		
Methyl tert-butyl ether	20.4	D	µg/l		20.0		102	70-130		
4-Methyl-2-pentanone (MIBK)	19.6	D	µg/l		20.0		98	70-130		
Methylene chloride	25.3	D	µg/l		20.0		126	70-130		
Styrene	20.3	D	µg/l		20.0		101	70-130		
1,1,2,2-Tetrachloroethane	20.1	D	µg/l		20.0		101	70-130		
Tetrachloroethene	22.4	D	µg/l		20.0		112	70-130		
Toluene	22.0	D	µg/l		20.0		110	70-130		
1,2,4-Trichlorobenzene	19.9	D, B	µg/l		20.0		99	70-130		
1,1,1-Trichloroethane	22.5	D	µg/l		20.0		113	70-130		
1,1,2-Trichloroethane	21.2	D	µg/l		20.0		106	70-130		
Trichloroethene	21.4	D	µg/l		20.0		107	70-130		

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## Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>LCS (1718835-BS2)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
Trichlorofluoromethane (Freon 11)	22.8	D	µg/l		20.0		114	70-130		
Vinyl chloride	19.8	D	µg/l		20.0		99	70-130		
Cyclohexane	22.0	D	µg/l		20.0		110	70-130		
Methyl acetate	31.4	D, B	µg/l		20.0		157	70-130		
Methylcyclohexane	23.0	D	µg/l		20.0		115	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	51.3		µg/l		50.0		103	70-130		
<i>Surrogate: Toluene-d8</i>	52.5		µg/l		50.0		105	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	48.2		µg/l		50.0		96	70-130		
<i>Surrogate: Dibromofluoromethane</i>	49.8		µg/l		50.0		100	70-130		
<b>LCS Dup (1718835-BSD1)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	23.1		µg/l		20.0		116	70-130	13	20
Acetone	19.9		µg/l		20.0		100	70-130	6	20
Benzene	22.1		µg/l		20.0		110	70-130	8	20
Bromodichloromethane	21.4		µg/l		20.0		107	70-130	7	20
Bromoform	21.9		µg/l		20.0		109	70-130	2	20
Bromomethane	14.9		µg/l		20.0		75	70-130	2	20
2-Butanone (MEK)	20.1		µg/l		20.0		101	70-130	11	20
Carbon disulfide	23.0	QR2	µg/l		20.0		115	70-130	28	20
Carbon tetrachloride	22.7		µg/l		20.0		113	70-130	12	20
Chlorobenzene	21.4		µg/l		20.0		107	70-130	3	20
Chloroethane	18.9		µg/l		20.0		95	70-130	13	20
Chloroform	21.8		µg/l		20.0		109	70-130	3	20
Chloromethane	16.4		µg/l		20.0		82	70-130	3	20
1,2-Dibromo-3-chloropropane	19.9		µg/l		20.0		100	70-130	5	20
Dibromochloromethane	22.2		µg/l		20.0		111	70-130	6	20
1,2-Dibromoethane (EDB)	21.9		µg/l		20.0		110	70-130	1	20
1,2-Dichlorobenzene	21.1		µg/l		20.0		106	70-130	3	20
1,3-Dichlorobenzene	20.4		µg/l		20.0		102	70-130	2	20
1,4-Dichlorobenzene	20.8		µg/l		20.0		104	70-130	0.3	20
Dichlorodifluoromethane (Freon12)	20.4		µg/l		20.0		102	70-130	13	20
1,1-Dichloroethane	21.3		µg/l		20.0		106	70-130	8	20
1,2-Dichloroethane	21.6		µg/l		20.0		108	70-130	4	20
1,1-Dichloroethene	20.9		µg/l		20.0		104	70-130	12	20
cis-1,2-Dichloroethene	22.3		µg/l		20.0		112	70-130	4	20
trans-1,2-Dichloroethene	22.2		µg/l		20.0		111	70-130	6	20
1,2-Dichloropropane	19.9		µg/l		20.0		100	70-130	9	20
cis-1,3-Dichloropropene	20.6		µg/l		20.0		103	70-130	3	20
trans-1,3-Dichloropropene	21.6		µg/l		20.0		108	70-130	6	20
Ethylbenzene	20.4		µg/l		20.0		102	70-130	4	20
2-Hexanone (MBK)	22.0		µg/l		20.0		110	70-130	12	20
Isopropylbenzene	21.0		µg/l		20.0		105	70-130	7	20
Methyl tert-butyl ether	20.9		µg/l		20.0		105	70-130	3	20
4-Methyl-2-pentanone (MIBK)	20.4		µg/l		20.0		102	70-130	4	20
Methylene chloride	24.8	QR2	µg/l		20.0		124	70-130	27	20
Styrene	20.1		µg/l		20.0		101	70-130	1	20
1,1,2,2-Tetrachloroethane	20.3		µg/l		20.0		101	70-130	0.1	20
Tetrachloroethene	22.6		µg/l		20.0		113	70-130	9	20
Toluene	22.0		µg/l		20.0		110	70-130	6	20
1,2,4-Trichlorobenzene	19.0	B	µg/l		20.0		95	70-130	0.1	20
1,1,1-Trichloroethane	22.2		µg/l		20.0		111	70-130	9	20

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>LCS Dup (1718835-BSD1)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,1,2-Trichloroethane	22.4		µg/l		20.0		112	70-130	4	20
Trichloroethene	21.6		µg/l		20.0		108	70-130	6	20
Trichlorofluoromethane (Freon 11)	21.8		µg/l		20.0		109	70-130	13	20
Vinyl chloride	19.8		µg/l		20.0		99	70-130	9	20
Cyclohexane	21.4		µg/l		20.0		107	70-130	9	30
Methyl acetate	18.6	QR5, B	µg/l		20.0		93	70-130	38	30
Methylcyclohexane	21.2		µg/l		20.0		106	70-130	13	30
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Surrogate: 4-Bromofluorobenzene	52.2		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	52.0		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.8		µg/l		50.0		98	70-130		
Surrogate: Dibromofluoromethane	50.6		µg/l		50.0		101	70-130		
<b>LCS Dup (1718835-BSD2)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	27.0	D	µg/l		20.0		135	70-130	9	20
Acetone	21.4	D	µg/l		20.0		107	70-130	7	20
Benzene	23.4	D	µg/l		20.0		117	70-130	6	20
Bromodichloromethane	22.6	D	µg/l		20.0		113	70-130	6	20
Bromoform	22.2	D	µg/l		20.0		111	70-130	7	20
Bromomethane	16.4	D	µg/l		20.0		82	70-130	23	20
2-Butanone (MEK)	20.3	D	µg/l		20.0		101	70-130	4	20
Carbon disulfide	25.7	D	µg/l		20.0		128	70-130	7	20
Carbon tetrachloride	25.0	D	µg/l		20.0		125	70-130	7	20
Chlorobenzene	21.8	D	µg/l		20.0		109	70-130	3	20
Chloroethane	20.7	D	µg/l		20.0		104	70-130	5	20
Chloroform	23.2	D	µg/l		20.0		116	70-130	4	20
Chloromethane	17.4	D	µg/l		20.0		87	70-130	6	20
1,2-Dibromo-3-chloropropane	19.3	D	µg/l		20.0		96	70-130	0.1	20
Dibromochloromethane	23.4	D	µg/l		20.0		117	70-130	5	20
1,2-Dibromoethane (EDB)	22.2	D	µg/l		20.0		111	70-130	6	20
1,2-Dichlorobenzene	21.7	D	µg/l		20.0		108	70-130	4	20
1,3-Dichlorobenzene	21.7	D	µg/l		20.0		108	70-130	6	20
1,4-Dichlorobenzene	21.2	D	µg/l		20.0		106	70-130	4	20
Dichlorodifluoromethane (Freon12)	23.1	D	µg/l		20.0		116	70-130	7	20
1,1-Dichloroethane	23.0	D	µg/l		20.0		115	70-130	6	20
1,2-Dichloroethane	22.2	D	µg/l		20.0		111	70-130	2	20
1,1-Dichloroethene	23.6	D	µg/l		20.0		118	70-130	7	20
cis-1,2-Dichloroethene	23.3	D	µg/l		20.0		116	70-130	5	20
trans-1,2-Dichloroethene	23.2	D	µg/l		20.0		116	70-130	7	20
1,2-Dichloropropane	21.6	D	µg/l		20.0		108	70-130	5	20
cis-1,3-Dichloropropene	22.7	D	µg/l		20.0		113	70-130	5	20
trans-1,3-Dichloropropene	22.6	D	µg/l		20.0		113	70-130	1	20
Ethylbenzene	21.4	D	µg/l		20.0		107	70-130	4	20
2-Hexanone (MBK)	20.1	D	µg/l		20.0		101	70-130	3	20
Isopropylbenzene	22.4	D	µg/l		20.0		112	70-130	5	20
Methyl tert-butyl ether	21.3	D	µg/l		20.0		106	70-130	4	20
4-Methyl-2-pentanone (MIBK)	20.7	D	µg/l		20.0		104	70-130	6	20
Methylene chloride	26.7	D	µg/l		20.0		133	70-130	5	20
Styrene	21.8	D	µg/l		20.0		109	70-130	7	20
1,1,1,2-Tetrachloroethane	20.9	D	µg/l		20.0		104	70-130	4	20
Tetrachloroethene	24.3	D	µg/l		20.0		122	70-130	8	20
Toluene	23.4	D	µg/l		20.0		117	70-130	6	20

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718835 - SW846 5030 Water MS</b>										
<b>LCS Dup (1718835-BSD2)</b>					<u>Prepared &amp; Analyzed: 07-Nov-17</u>					
1,2,4-Trichlorobenzene	20.7	D, B	µg/l		20.0		103	70-130	4	20
1,1,1-Trichloroethane	24.2	D	µg/l		20.0		121	70-130	7	20
1,1,2-Trichloroethane	22.0	D	µg/l		20.0		110	70-130	3	20
Trichloroethene	23.3	D	µg/l		20.0		116	70-130	9	20
Trichlorofluoromethane (Freon 11)	24.7	D	µg/l		20.0		123	70-130	8	20
Vinyl chloride	21.0	D	µg/l		20.0		105	70-130	6	20
Cyclohexane	23.9	D	µg/l		20.0		120	70-130	8	30
Methyl acetate	32.6	D, B	µg/l		20.0		163	70-130	4	30
Methylcyclohexane	24.8	D	µg/l		20.0		124	70-130	8	30
Surrogate: 4-Bromofluorobenzene	52.4		µg/l		50.0		105	70-130		
Surrogate: Toluene-d8	52.6		µg/l		50.0		105	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.5		µg/l		50.0		99	70-130		
Surrogate: Dibromofluoromethane	49.7		µg/l		50.0		99	70-130		
<b>Batch 1718908 - SW846 5030 Water MS</b>										
<b>Blank (1718908-BLK1)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	U	µg/l	1.00						
Acetone	< 10.0	U	µg/l	10.0						
Benzene	< 1.00	U	µg/l	1.00						
Bromodichloromethane	< 0.50	U	µg/l	0.50						
Bromoform	< 1.00	U	µg/l	1.00						
Bromomethane	< 2.00	U	µg/l	2.00						
2-Butanone (MEK)	< 2.00	U	µg/l	2.00						
Carbon disulfide	< 2.00	U	µg/l	2.00						
Carbon tetrachloride	< 1.00	U	µg/l	1.00						
Chlorobenzene	< 1.00	U	µg/l	1.00						
Chloroethane	< 2.00	U	µg/l	2.00						
Chloroform	< 1.00	U	µg/l	1.00						
Chloromethane	< 2.00	U	µg/l	2.00						
1,2-Dibromo-3-chloropropane	< 2.00	U	µg/l	2.00						
Dibromochloromethane	< 0.50	U	µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50	U	µg/l	0.50						
1,2-Dichlorobenzene	< 1.00	U	µg/l	1.00						
1,3-Dichlorobenzene	< 1.00	U	µg/l	1.00						
1,4-Dichlorobenzene	< 1.00	U	µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00	U	µg/l	2.00						
1,1-Dichloroethane	< 1.00	U	µg/l	1.00						
1,2-Dichloroethane	< 1.00	U	µg/l	1.00						
1,1-Dichloroethene	< 1.00	U	µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00	U	µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00	U	µg/l	1.00						
1,2-Dichloropropane	< 1.00	U	µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50	U	µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50	U	µg/l	0.50						
Ethylbenzene	< 1.00	U	µg/l	1.00						
2-Hexanone (MBK)	< 2.00	U	µg/l	2.00						
Isopropylbenzene	< 1.00	U	µg/l	1.00						
Methyl tert-butyl ether	0.37	J	µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 2.00	U	µg/l	2.00						
Methylene chloride	< 2.00	U	µg/l	2.00						
Styrene	< 1.00	U	µg/l	1.00						

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718908 - SW846 5030 Water MS</b>										
<b>Blank (1718908-BLK1)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
1,1,2,2-Tetrachloroethane	< 0.50	U	µg/l	0.50						
Tetrachloroethene	< 1.00	U	µg/l	1.00						
Toluene	< 1.00	U	µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00	U	µg/l	1.00						
1,1,1-Trichloroethane	< 1.00	U	µg/l	1.00						
1,1,2-Trichloroethane	< 1.00	U	µg/l	1.00						
Trichloroethene	< 1.00	U	µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00	U	µg/l	1.00						
Vinyl chloride	< 1.00	U	µg/l	1.00						
Total Xylenes	< 3.00	U	µg/l	3.00						
Cyclohexane	< 5.00	U	µg/l	5.00						
Methyl acetate	< 5.00	U	µg/l	5.00						
Methylcyclohexane	< 5.00	U	µg/l	5.00						
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Surrogate: 4-Bromofluorobenzene	51.9		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	51.6		µg/l		50.0		103	70-130		
Surrogate: 1,2-Dichloroethane-d4	51.0		µg/l		50.0		102	70-130		
Surrogate: Dibromofluoromethane	51.3		µg/l		50.0		103	70-130		
<b>LCS (1718908-BS1)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	25.0		µg/l		20.0		125	70-130		
Acetone	19.7		µg/l		20.0		98	70-130		
Benzene	21.9		µg/l		20.0		109	70-130		
Bromodichloromethane	21.6		µg/l		20.0		108	70-130		
Bromoform	21.5		µg/l		20.0		107	70-130		
Bromomethane	14.2		µg/l		20.0		71	70-130		
2-Butanone (MEK)	19.7		µg/l		20.0		99	70-130		
Carbon disulfide	24.2		µg/l		20.0		121	70-130		
Carbon tetrachloride	23.6		µg/l		20.0		118	70-130		
Chlorobenzene	21.0		µg/l		20.0		105	70-130		
Chloroethane	18.7		µg/l		20.0		93	70-130		
Chloroform	21.4		µg/l		20.0		107	70-130		
Chloromethane	16.8		µg/l		20.0		84	70-130		
1,2-Dibromo-3-chloropropane	18.1		µg/l		20.0		90	70-130		
Dibromochloromethane	22.9		µg/l		20.0		115	70-130		
1,2-Dibromoethane (EDB)	20.6		µg/l		20.0		103	70-130		
1,2-Dichlorobenzene	20.4		µg/l		20.0		102	70-130		
1,3-Dichlorobenzene	20.7		µg/l		20.0		104	70-130		
1,4-Dichlorobenzene	19.4		µg/l		20.0		97	70-130		
Dichlorodifluoromethane (Freon12)	20.6		µg/l		20.0		103	70-130		
1,1-Dichloroethane	21.2		µg/l		20.0		106	70-130		
1,2-Dichloroethane	22.0		µg/l		20.0		110	70-130		
1,1-Dichloroethene	26.1		µg/l		20.0		130	70-130		
cis-1,2-Dichloroethene	22.2		µg/l		20.0		111	70-130		
trans-1,2-Dichloroethene	22.0		µg/l		20.0		110	70-130		
1,2-Dichloropropane	20.1		µg/l		20.0		100	70-130		
cis-1,3-Dichloropropene	20.2		µg/l		20.0		101	70-130		
trans-1,3-Dichloropropene	21.5		µg/l		20.0		108	70-130		
Ethylbenzene	20.5		µg/l		20.0		103	70-130		
2-Hexanone (MBK)	18.9		µg/l		20.0		95	70-130		
Isopropylbenzene	21.5		µg/l		20.0		107	70-130		
Methyl tert-butyl ether	20.2		µg/l		20.0		101	70-130		

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718908 - SW846 5030 Water MS</b>										
<b>LCS (1718908-BS1)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
4-Methyl-2-pentanone (MIBK)	18.1		µg/l		20.0		91	70-130		
Methylene chloride	24.8		µg/l		20.0		124	70-130		
Styrene	19.7		µg/l		20.0		98	70-130		
1,1,2,2-Tetrachloroethane	19.4		µg/l		20.0		97	70-130		
Tetrachloroethene	23.1		µg/l		20.0		116	70-130		
Toluene	22.4		µg/l		20.0		112	70-130		
1,2,4-Trichlorobenzene	18.2		µg/l		20.0		91	70-130		
1,1,1-Trichloroethane	23.0		µg/l		20.0		115	70-130		
1,1,2-Trichloroethane	22.1		µg/l		20.0		111	70-130		
Trichloroethene	22.2		µg/l		20.0		111	70-130		
Trichlorofluoromethane (Freon 11)	22.9		µg/l		20.0		115	70-130		
Vinyl chloride	20.0		µg/l		20.0		100	70-130		
Cyclohexane	21.7		µg/l		20.0		109	70-130		
Methyl acetate	22.0		µg/l		20.0		110	70-130		
Methylcyclohexane	23.2		µg/l		20.0		116	70-130		
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Surrogate: 4-Bromofluorobenzene	52.5		µg/l		50.0		105	70-130		
Surrogate: Toluene-d8	51.8		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.6		µg/l		50.0		97	70-130		
Surrogate: Dibromofluoromethane	49.5		µg/l		50.0		99	70-130		
<b>LCS (1718908-BS2)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	24.0	D	µg/l		20.0		120	70-130		
Acetone	21.1	D	µg/l		20.0		105	70-130		
Benzene	21.8	D	µg/l		20.0		109	70-130		
Bromodichloromethane	21.3	D	µg/l		20.0		106	70-130		
Bromoform	21.2	D	µg/l		20.0		106	70-130		
Bromomethane	14.3	D	µg/l		20.0		71	70-130		
2-Butanone (MEK)	19.6	D	µg/l		20.0		98	70-130		
Carbon disulfide	21.8	D	µg/l		20.0		109	70-130		
Carbon tetrachloride	23.0	D	µg/l		20.0		115	70-130		
Chlorobenzene	20.7	D	µg/l		20.0		104	70-130		
Chloroethane	17.4	D	µg/l		20.0		87	70-130		
Chloroform	22.0	D	µg/l		20.0		110	70-130		
Chloromethane	15.2	D	µg/l		20.0		76	70-130		
1,2-Dibromo-3-chloropropane	20.0	D	µg/l		20.0		100	70-130		
Dibromochloromethane	22.5	D	µg/l		20.0		112	70-130		
1,2-Dibromoethane (EDB)	22.6	D	µg/l		20.0		113	70-130		
1,2-Dichlorobenzene	20.8	D	µg/l		20.0		104	70-130		
1,3-Dichlorobenzene	20.2	D	µg/l		20.0		101	70-130		
1,4-Dichlorobenzene	20.3	D	µg/l		20.0		101	70-130		
Dichlorodifluoromethane (Freon12)	18.0	D	µg/l		20.0		90	70-130		
1,1-Dichloroethane	21.2	D	µg/l		20.0		106	70-130		
1,2-Dichloroethane	22.0	D	µg/l		20.0		110	70-130		
1,1-Dichloroethene	23.3	D	µg/l		20.0		116	70-130		
cis-1,2-Dichloroethene	21.9	D	µg/l		20.0		110	70-130		
trans-1,2-Dichloroethene	21.1	D	µg/l		20.0		106	70-130		
1,2-Dichloropropane	20.7	D	µg/l		20.0		104	70-130		
cis-1,3-Dichloropropene	21.7	D	µg/l		20.0		108	70-130		
trans-1,3-Dichloropropene	22.9	D	µg/l		20.0		115	70-130		
Ethylbenzene	19.9	D	µg/l		20.0		99	70-130		
2-Hexanone (MBK)	20.6	D	µg/l		20.0		103	70-130		

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718908 - SW846 5030 Water MS</b>										
<b>LCS (1718908-BS2)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
Isopropylbenzene	21.3	D	µg/l		20.0		106	70-130		
Methyl tert-butyl ether	21.0	D	µg/l		20.0		105	70-130		
4-Methyl-2-pentanone (MIBK)	21.0	D	µg/l		20.0		105	70-130		
Methylene chloride	23.7	D	µg/l		20.0		118	70-130		
Styrene	20.2	D	µg/l		20.0		101	70-130		
1,1,2,2-Tetrachloroethane	20.3	D	µg/l		20.0		101	70-130		
Tetrachloroethene	23.4	D	µg/l		20.0		117	70-130		
Toluene	22.3	D	µg/l		20.0		112	70-130		
1,2,4-Trichlorobenzene	19.8	D	µg/l		20.0		99	70-130		
1,1,1-Trichloroethane	22.5	D	µg/l		20.0		113	70-130		
1,1,2-Trichloroethane	21.8	D	µg/l		20.0		109	70-130		
Trichloroethene	21.6	D	µg/l		20.0		108	70-130		
Trichlorofluoromethane (Freon 11)	21.6	D	µg/l		20.0		108	70-130		
Vinyl chloride	17.4	D	µg/l		20.0		87	70-130		
Cyclohexane	21.3	D	µg/l		20.0		107	70-130		
Methyl acetate	52.5	D	µg/l		20.0		263	70-130		
Methylcyclohexane	22.2	D	µg/l		20.0		111	70-130		
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Surrogate: 4-Bromofluorobenzene	51.8		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	51.8		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	50.0		µg/l		50.0		100	70-130		
Surrogate: Dibromofluoromethane	50.2		µg/l		50.0		100	70-130		
<b>LCS Dup (1718908-BSD1)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	23.9		µg/l		20.0		119	70-130	5	20
Acetone	20.2		µg/l		20.0		101	70-130	2	20
Benzene	21.8		µg/l		20.0		109	70-130	0.4	20
Bromodichloromethane	21.7		µg/l		20.0		109	70-130	0.6	20
Bromoform	20.5		µg/l		20.0		102	70-130	5	20
Bromomethane	14.4		µg/l		20.0		72	70-130	2	20
2-Butanone (MEK)	18.9		µg/l		20.0		95	70-130	4	20
Carbon disulfide	23.5		µg/l		20.0		117	70-130	3	20
Carbon tetrachloride	23.7		µg/l		20.0		119	70-130	0.5	20
Chlorobenzene	20.6		µg/l		20.0		103	70-130	2	20
Chloroethane	19.6		µg/l		20.0		98	70-130	5	20
Chloroform	21.4		µg/l		20.0		107	70-130	0.2	20
Chloromethane	16.3		µg/l		20.0		82	70-130	3	20
1,2-Dibromo-3-chloropropane	17.8		µg/l		20.0		89	70-130	2	20
Dibromochloromethane	22.9		µg/l		20.0		115	70-130	0	20
1,2-Dibromoethane (EDB)	20.9		µg/l		20.0		104	70-130	2	20
1,2-Dichlorobenzene	20.2		µg/l		20.0		101	70-130	1	20
1,3-Dichlorobenzene	19.7		µg/l		20.0		98	70-130	5	20
1,4-Dichlorobenzene	20.0		µg/l		20.0		100	70-130	3	20
Dichlorodifluoromethane (Freon12)	20.8		µg/l		20.0		104	70-130	1	20
1,1-Dichloroethane	20.9		µg/l		20.0		104	70-130	1	20
1,2-Dichloroethane	21.8		µg/l		20.0		109	70-130	0.9	20
1,1-Dichloroethene	27.1	QM9	µg/l		20.0		135	70-130	4	20
cis-1,2-Dichloroethene	21.6		µg/l		20.0		108	70-130	3	20
trans-1,2-Dichloroethene	22.2		µg/l		20.0		111	70-130	1	20
1,2-Dichloropropane	20.0		µg/l		20.0		100	70-130	0.4	20
cis-1,3-Dichloropropene	20.1		µg/l		20.0		100	70-130	0.4	20
trans-1,3-Dichloropropene	21.1		µg/l		20.0		106	70-130	2	20

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**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718908 - SW846 5030 Water MS</b>										
<b>LCS Dup (1718908-BSD1)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
Ethylbenzene	19.8		µg/l		20.0		99	70-130	3	20
2-Hexanone (MBK)	18.8		µg/l		20.0		94	70-130	0.7	20
Isopropylbenzene	20.6		µg/l		20.0		103	70-130	4	20
Methyl tert-butyl ether	20.1		µg/l		20.0		100	70-130	0.5	20
4-Methyl-2-pentanone (MIBK)	18.2		µg/l		20.0		91	70-130	0.3	20
Methylene chloride	25.4		µg/l		20.0		127	70-130	2	20
Styrene	19.8		µg/l		20.0		99	70-130	0.5	20
1,1,2,2-Tetrachloroethane	18.6		µg/l		20.0		93	70-130	5	20
Tetrachloroethene	22.8		µg/l		20.0		114	70-130	1	20
Toluene	21.6		µg/l		20.0		108	70-130	3	20
1,2,4-Trichlorobenzene	18.5		µg/l		20.0		92	70-130	2	20
1,1,1-Trichloroethane	23.0		µg/l		20.0		115	70-130	0.2	20
1,1,2-Trichloroethane	21.4		µg/l		20.0		107	70-130	3	20
Trichloroethene	22.0		µg/l		20.0		110	70-130	1	20
Trichlorofluoromethane (Freon 11)	21.8		µg/l		20.0		109	70-130	5	20
Vinyl chloride	19.2		µg/l		20.0		96	70-130	4	20
Cyclohexane	21.9		µg/l		20.0		109	70-130	0.6	30
Methyl acetate	20.1		µg/l		20.0		101	70-130	9	30
Methylcyclohexane	22.1		µg/l		20.0		110	70-130	5	30
<i>Surrogate: 4-Bromofluorobenzene</i>	51.5		µg/l		50.0		103	70-130		
<i>Surrogate: Toluene-d8</i>	51.7		µg/l		50.0		103	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.6		µg/l		50.0		99	70-130		
<i>Surrogate: Dibromofluoromethane</i>	50.0		µg/l		50.0		100	70-130		
<b>LCS Dup (1718908-BSD2)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	25.8	D	µg/l		20.0		129	70-130	7	20
Acetone	21.5	D	µg/l		20.0		108	70-130	2	20
Benzene	22.4	D	µg/l		20.0		112	70-130	3	20
Bromodichloromethane	22.7	D	µg/l		20.0		114	70-130	7	20
Bromoform	22.1	D	µg/l		20.0		110	70-130	4	20
Bromomethane	15.3	D	µg/l		20.0		76	70-130	7	20
2-Butanone (MEK)	21.9	D	µg/l		20.0		109	70-130	11	20
Carbon disulfide	23.0	D	µg/l		20.0		115	70-130	6	20
Carbon tetrachloride	24.2	D	µg/l		20.0		121	70-130	5	20
Chlorobenzene	21.3	D	µg/l		20.0		107	70-130	3	20
Chloroethane	18.8	D	µg/l		20.0		94	70-130	8	20
Chloroform	22.3	D	µg/l		20.0		112	70-130	1	20
Chloromethane	16.2	D	µg/l		20.0		81	70-130	6	20
1,2-Dibromo-3-chloropropane	19.1	D	µg/l		20.0		95	70-130	5	20
Dibromochloromethane	23.9	D	µg/l		20.0		119	70-130	6	20
1,2-Dibromoethane (EDB)	22.4	D	µg/l		20.0		112	70-130	0.7	20
1,2-Dichlorobenzene	21.4	D	µg/l		20.0		107	70-130	3	20
1,3-Dichlorobenzene	20.8	D	µg/l		20.0		104	70-130	3	20
1,4-Dichlorobenzene	20.8	D	µg/l		20.0		104	70-130	3	20
Dichlorodifluoromethane (Freon12)	19.1	D	µg/l		20.0		95	70-130	6	20
1,1-Dichloroethane	21.6	D	µg/l		20.0		108	70-130	2	20
1,2-Dichloroethane	22.9	D	µg/l		20.0		115	70-130	4	20
1,1-Dichloroethene	21.2	D	µg/l		20.0		106	70-130	9	20
cis-1,2-Dichloroethene	22.9	D	µg/l		20.0		115	70-130	4	20
trans-1,2-Dichloroethene	21.2	D	µg/l		20.0		106	70-130	0.6	20
1,2-Dichloropropane	21.2	D	µg/l		20.0		106	70-130	3	20

*This laboratory report is not valid without an authorized signature on the cover page.*

**Volatile Organic Compounds - Quality Control**

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>SW846 8260C</b>										
<b>Batch 1718908 - SW846 5030 Water MS</b>										
<b>LCS Dup (1718908-bsd2)</b>					<u>Prepared &amp; Analyzed: 08-Nov-17</u>					
cis-1,3-Dichloropropene	22.9	D	µg/l		20.0		114	70-130	5	20
trans-1,3-Dichloropropene	23.9	D	µg/l		20.0		120	70-130	4	20
Ethylbenzene	20.8	D	µg/l		20.0		104	70-130	4	20
2-Hexanone (MBK)	22.2	D	µg/l		20.0		111	70-130	7	20
Isopropylbenzene	21.5	D	µg/l		20.0		108	70-130	1	20
Methyl tert-butyl ether	21.2	D	µg/l		20.0		106	70-130	1	20
4-Methyl-2-pentanone (MIBK)	22.4	D	µg/l		20.0		112	70-130	6	20
Methylene chloride	26.0	D	µg/l		20.0		130	70-130	9	20
Styrene	21.0	D	µg/l		20.0		105	70-130	4	20
1,1,2,2-Tetrachloroethane	20.6	D	µg/l		20.0		103	70-130	2	20
Tetrachloroethene	23.6	D	µg/l		20.0		118	70-130	0.8	20
Toluene	22.6	D	µg/l		20.0		113	70-130	1	20
1,2,4-Trichlorobenzene	21.1	D	µg/l		20.0		106	70-130	7	20
1,1,1-Trichloroethane	23.0	D	µg/l		20.0		115	70-130	2	20
1,1,2-Trichloroethane	22.2	D	µg/l		20.0		111	70-130	2	20
Trichloroethene	23.0	D	µg/l		20.0		115	70-130	6	20
Trichlorofluoromethane (Freon 11)	22.4	D	µg/l		20.0		112	70-130	3	20
Vinyl chloride	18.1	D	µg/l		20.0		90	70-130	4	20
Cyclohexane	22.6	D	µg/l		20.0		113	70-130	6	30
Methyl acetate	55.6	D	µg/l		20.0		278	70-130	6	30
Methylcyclohexane	23.7	D	µg/l		20.0		119	70-130	7	30
Surrogate: 4-Bromofluorobenzene	51.0		µg/l		50.0		102	70-130		
Surrogate: Toluene-d8	52.0		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	50.7		µg/l		50.0		101	70-130		
Surrogate: Dibromofluoromethane	49.5		µg/l		50.0		99	70-130		

**SW846 8260C TICs**

**Batch 1718835 - SW846 5030 Water MS**

**Blank (1718835-BLK1)**

Prepared & Analyzed: 07-Nov-17

Tentatively Identified Compounds      **None found**      µg/l

**Batch 1718908 - SW846 5030 Water MS**

**Blank (1718908-BLK1)**

Prepared & Analyzed: 08-Nov-17

Tentatively Identified Compounds      **None found**      µg/l

## Notes and Definitions

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
J N	(Tentatively Identified Compounds) reported values are estimated concentrations of non-target analytes identified at greater than 10% of the nearest internal standard.
NonTRG TIC	Non-target concentration sufficient to be reported as one of the highest TICs.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.



Spectrum Analytical

# CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- Standard TAT - 7 to 10 business days
  - Rush TAT - Date Needed: \_\_\_\_\_
- All TATs subject to laboratory approval  
Min. 24-hr notification needed for rushes  
Samples disposed after 30 days unless otherwise instructed.

Report To: C&S Engineers, Inc.

14 Elm Street, Suite 100  
Buffalo, NY 14203

Invoice To: C&S Engineers, Inc.

14 Elm Street, Suite 100  
Buffalo, NY 14203

Telephone #: (716) 847-1030  
Project Mgr: COY MARTIN cmartin@csus.com

Quote #: \_\_\_\_\_

Project No: N46.001.001  
Site Name: CONVENTUS  
Location: 1001 Main Street State: NY  
Sampler(s): AS

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= \_\_\_\_\_ 12= \_\_\_\_\_

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Lab ID: Sample ID: Date: Time: Type

S41135-d1 BCP-MW-LD 11/2/17 10:50 AM GN 3

v2 BCP-MW-1 11/2/17 11:35 AM GN 3

v3 BCP-MW-7 11/2/17 12:25 PM GN 3

v4 BCP-MW-3 11/2/17 1:50 PM GN 3

v5 BCP-MW-5 11/2/17 2:45 PM GN 3

Lab ID	Sample ID	Date	Time	Type	Matrix	Containers				Analysis	Check if chlorinated	QA/QC Reporting Notes: * additional charges may apply
						# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic			
<u>S41135-d1</u>	<u>BCP-MW-LD</u>	<u>11/2/17</u>	<u>10:50 AM</u>	<u>GN</u>	<u>3</u>					<u>X</u>	<u>TCL</u> <u>VOCS</u> <u>(8260)</u>	
<u>v2</u>	<u>BCP-MW-1</u>	<u>11/2/17</u>	<u>11:35 AM</u>	<u>GN</u>	<u>3</u>					<u>X</u>		
<u>v3</u>	<u>BCP-MW-7</u>	<u>11/2/17</u>	<u>12:25 PM</u>	<u>GN</u>	<u>3</u>					<u>X</u>		
<u>v4</u>	<u>BCP-MW-3</u>	<u>11/2/17</u>	<u>1:50 PM</u>	<u>GN</u>	<u>3</u>					<u>X</u>		
<u>v5</u>	<u>BCP-MW-5</u>	<u>11/2/17</u>	<u>2:45 PM</u>	<u>GN</u>	<u>3</u>					<u>X</u>		

Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_

Amelia Carlynn Rice

Fedex Fedex  
11/3/2017 11/4/17

Temp °C

20 20

EDD format: \_\_\_\_\_

E-mail to: \_\_\_\_\_

Condition upon receipt:  Ambient  Iced  Refrigerated  DI VOA Frozen  Present  Intact  Broken

Custody Seals:  Present  Intact  Broken

(TCL VOCs)  
VOC LIST

1,1,1-Trichloroethane  
1,1,2,2-Tetrachloroethane  
1,1,2-Trichloro-1,2,2-trifluoroethane  
1,1,2-Trichloroethane  
1,1-Dichloroethane  
1,1-Dichloroethene  
1,2,4-Trichlorobenzene  
1,2-Dibromo-3-Chloropropane  
1,2-Dibromoethane  
1,2-Dichlorobenzene  
1,2-Dichloroethane  
1,2-Dichloropropane  
1,3-Dichlorobenzene  
1,4-Dichlorobenzene  
2-Butanone (MEK)  
2-Hexanone  
4-Methyl-2-pentanone (MIBK)  
Acetone  
Benzene  
Bromodichloromethane  
Bromoform  
Bromomethane  
Carbon disulfide  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane  
Chloroform  
Chloromethane  
cis-1,2-Dichloroethene  
cis-1,3-Dichloropropene  
Cyclohexane  
Dibromochloromethane  
Dichlorodifluoromethane  
Ethylbenzene  
Isopropylbenzene  
Methyl acetate  
Methyl tert-butyl ether  
Methylcyclohexane  
Methylene Chloride  
Styrene  
Tetrachloroethene  
Toluene  
trans-1,2-Dichloroethene  
trans-1,3-Dichloropropene  
Trichloroethene  
Trichlorofluoromethane  
Vinyl chloride  
1,2-Dichloroethane-d4 (Surr)  
4-Bromofluorobenzene (Surr)  
Dibromofluoromethane (Surr)  
Toluene-d8 (Surr)  
Xylenes, Total

56  
3  
12:00  
8210  
11:04  
B

**FedEx**  
Express  
Package  
US Airbill  
FedEx Tracing Number  
8106 0271 8210

1 From  
Date 11/21/12

Sender's Name  
A. K. SMITH  
Phone 716 545 8976

Company  
KODAK CORP

Address  
141 FIRM STREET SUITE 100  
Buffalo, NY 14203

City Buffalo, NY State NY ZIP 14203

2 Your Internal Billing Reference

3 To Recipients Name  
Sample Receiving  
Phone

Company  
ELECTRON SOLUTIONS INTERNATIONAL INC.

Address  
1 AMHERST DRIVE  
Dept./Room/State/Room

Address  
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address  
Use this line for the HOLD location address or for continuation of your shipping address.  
City AMHERST, NY State NY ZIP 14201



8106 0271 8210

Form ID No. 0200

4 Express Package Service

Next Business Day

FedEx First Overnight  
FedEx First Overnight delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight  
FedEx Priority Overnight shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight  
FedEx Standard Overnight Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day AM  
FedEx 2Day AM Second Business Morning Saturday Delivery NOT available.

FedEx 2Day  
FedEx 2Day shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver  
FedEx Express Saver Saturday Delivery NOT available.

5 Packaging  
Declared value limit \$500.  
 FedEx Envelope\*  
 FedEx Pak\*  
 FedEx Box  
 FedEx Tube  
 Other

6 Special Handling and Delivery Signature Options

Saturday Delivery  
Saturday Delivery NOT available for FedEx Standard Overnight, FedEx 2Day AM, or FedEx Express Saver.

No Signature Required  
No Signature Required. Shipments will be delivered without obtaining a signature for delivery.

Direct Signature  
Direct Signature. Someone at recipient's address may sign for delivery.

Indirect Signature  
Indirect Signature. Someone at a residential address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?  
One box must be checked.  
 No  
 Yes As per attached Shipper's Declaration  
 Yes Shipper's Declaration not required.  
 Dry Ice  
 Cargo Aircraft Only

Restrictions apply for dangerous goods - see the current FedEx Service Guide.

7 Payment Bill to:  
Sender  
Account No. or Credit Card No. below  
Account No.   
Third Party   
Credit Card   
Cash/Check   
Total Packages  
Total Weight lbs.  
Credit Card Auth. 644

Your liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.  
Form 3843, © 2012 FedEx. PRINTED IN U.S. RFD-A 0000



Spectrum Analytical

# CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- Standard TAT - 7 to 10 business days
  - Rush TAT - Date Needed: \_\_\_\_\_
- All TATs subject to laboratory approval  
Min. 24-hr notification needed for rushes  
Samples disposed after 30 days unless otherwise instructed.

Report To: C&S Engineers Inc  
141 Elm Street, Suite 100  
Buffalo, NY 14203

Invoice To: C&S Engineers Inc.  
141 Elm Street, Suite 100  
Buffalo, NY 14203

Telephone #: (716) 847-1030  
 Project Mgr: COY MARTIN

Quote #: \_\_\_\_\_  
 P.O. No.: \_\_\_\_\_

Project No: N46.001.001  
 Site Name: CONVENTUS  
 Location: 1001 Main Street State: NY  
 Sample(s): AS

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
 7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= \_\_\_\_\_ 12= \_\_\_\_\_

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C-Composite

Lab ID:	Sample ID:	Date:	Time:	Type
S41135-d1	BCP-MW-LD	11/2/17	10:50 AM	GN
	BCP-NW-1	11/2/17	11:35 AM	GN
	BCP-MW-7	11/2/17	12:25 PM	GN
	BCP-MW-3	11/2/17	1:50 PM	GN
	BCP-MW-5	11/2/17	2:45 PM	GN
	Trip Blanks	11/2/17		

Date:	Time:	Temp °C	Containers				Analysis	Check if chlorinated	QA/QC Reporting Notes: * additional changes may apply
			# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic			
11/3/2017	10:20	2.0	3				X		
11/4/17	10:20	2.0	3				X		
			3				X		
			3				X		
			3				X		
			3				X		

Reinquished by: Amelia Received by: Carolee Rice

Condition upon receipt:  Ambient  Iced  Refrigerated  DI VOA Frozen  Present  Intact  Broken

Custody Seals:  Present  Intact  Broken

E-mail to: \_\_\_\_\_

Soil/air frozen:

TCL VOCs (8260) Attached List

Trip Blanks added  
 Discontinued  
 On 11/8

## Batch Summary

### **1718835**

#### *Volatile Organic Compounds*

1718835-BLK1  
1718835-BLK2  
1718835-BS1  
1718835-BS2  
1718835-BSD1  
1718835-BSD2  
SC41135-01 (BCP-MW-6)  
SC41135-02 (BCP-MW-1)  
SC41135-03 (BCP-MW-7)  
SC41135-05 (BCP-MW-5)  
SC41135-06 (Trip Blank)

### **1718908**

#### *Volatile Organic Compounds*

1718908-BLK1  
1718908-BS1  
1718908-BS2  
1718908-BSD1  
1718908-BSD2  
SC41135-04 (BCP-MW-3)

### **S709132**

#### *Volatile Organic Compounds*

S709132-CAL1  
S709132-CAL2  
S709132-CAL3  
S709132-CAL4  
S709132-CAL5  
S709132-CAL6  
S709132-CAL7  
S709132-CAL8  
S709132-CAL9  
S709132-CALA  
S709132-CALB  
S709132-ICV1  
S709132-LCV1  
S709132-LCV2  
S709132-TUN1

### **S709835**

#### *Volatile Organic Compounds*

S709835-CCV1  
S709835-TUN1

### **S709877**

#### *Volatile Organic Compounds*

S709877-CCV1  
S709877-TUN1



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**C&S Companies**

*For Lab Project ID*

**172147**

*Referencing*

**Conventus**

*Prepared*

**Friday, May 26, 2017**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, slanted strokes, positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Friday, May 26, 2017*



**Client:** C&S Companies

**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-1-051717

**Lab Sample ID:** 172147-01

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		5/25/2017 16:34
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		5/25/2017 16:34
1,1,2-Trichloroethane	< 2.00	ug/L		5/25/2017 16:34
1,1-Dichloroethane	< 2.00	ug/L		5/25/2017 16:34
1,1-Dichloroethene	< 2.00	ug/L		5/25/2017 16:34
1,2,3-Trichlorobenzene	< 5.00	ug/L		5/25/2017 16:34
1,2,4-Trichlorobenzene	< 5.00	ug/L		5/25/2017 16:34
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		5/25/2017 16:34
1,2-Dibromoethane	< 2.00	ug/L		5/25/2017 16:34
1,2-Dichlorobenzene	< 2.00	ug/L		5/25/2017 16:34
1,2-Dichloroethane	< 2.00	ug/L		5/25/2017 16:34
1,2-Dichloropropane	< 2.00	ug/L		5/25/2017 16:34
1,3-Dichlorobenzene	< 2.00	ug/L		5/25/2017 16:34
1,4-Dichlorobenzene	< 2.00	ug/L		5/25/2017 16:34
1,4-dioxane	< 20.0	ug/L		5/25/2017 16:34
2-Butanone	< 10.0	ug/L		5/25/2017 16:34
2-Hexanone	< 5.00	ug/L		5/25/2017 16:34
4-Methyl-2-pentanone	< 5.00	ug/L		5/25/2017 16:34
Acetone	< 10.0	ug/L		5/25/2017 16:34
Benzene	< 1.00	ug/L		5/25/2017 16:34
Bromochloromethane	< 5.00	ug/L		5/25/2017 16:34
Bromodichloromethane	< 2.00	ug/L		5/25/2017 16:34
Bromoform	< 5.00	ug/L		5/25/2017 16:34
Bromomethane	< 2.00	ug/L		5/25/2017 16:34
Carbon disulfide	< 2.00	ug/L		5/25/2017 16:34
Carbon Tetrachloride	< 2.00	ug/L		5/25/2017 16:34
Chlorobenzene	< 2.00	ug/L		5/25/2017 16:34
Chloroethane	< 2.00	ug/L		5/25/2017 16:34
Chloroform	< 2.00	ug/L		5/25/2017 16:34

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



**Client:** C&S Companies

**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-1-051717

**Lab Sample ID:** 172147-01

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

Chloromethane	< 2.00	ug/L	5/25/2017	16:34
cis-1,2-Dichloroethene	< 2.00	ug/L	5/25/2017	16:34
cis-1,3-Dichloropropene	< 2.00	ug/L	5/25/2017	16:34
Cyclohexane	< 10.0	ug/L	5/25/2017	16:34
Dibromochloromethane	< 2.00	ug/L	5/25/2017	16:34
Dichlorodifluoromethane	< 2.00	ug/L	5/25/2017	16:34
Ethylbenzene	< 2.00	ug/L	5/25/2017	16:34
Freon 113	< 2.00	ug/L	5/25/2017	16:34
Isopropylbenzene	< 2.00	ug/L	5/25/2017	16:34
m,p-Xylene	< 2.00	ug/L	5/25/2017	16:34
Methyl acetate	< 2.00	ug/L	5/25/2017	16:34
Methyl tert-butyl Ether	< 2.00	ug/L	5/25/2017	16:34
Methylcyclohexane	< 2.00	ug/L	5/25/2017	16:34
Methylene chloride	< 5.00	ug/L	5/25/2017	16:34
o-Xylene	< 2.00	ug/L	5/25/2017	16:34
Styrene	< 5.00	ug/L	5/25/2017	16:34
Tetrachloroethene	< 2.00	ug/L	5/25/2017	16:34
Toluene	< 2.00	ug/L	5/25/2017	16:34
trans-1,2-Dichloroethene	< 2.00	ug/L	5/25/2017	16:34
trans-1,3-Dichloropropene	< 2.00	ug/L	5/25/2017	16:34
Trichloroethene	< 2.00	ug/L	5/25/2017	16:34
Trichlorofluoromethane	< 2.00	ug/L	5/25/2017	16:34
Vinyl chloride	< 2.00	ug/L	5/25/2017	16:34

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>101</b>	77.8 - 124		5/25/2017 16:34
4-Bromofluorobenzene	<b>97.5</b>	78 - 117		5/25/2017 16:34
Pentafluorobenzene	<b>102</b>	83.2 - 118		5/25/2017 16:34
Toluene-D8	<b>101</b>	83.7 - 116		5/25/2017 16:34

**Method Reference(s):** EPA 8260C  
EPA 5030C  
**Data File:** x41780.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

**Client:** C&S Companies
**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-7-051717

**Lab Sample ID:** 172147-02

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		5/25/2017 16:58
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		5/25/2017 16:58
1,1,2-Trichloroethane	< 2.00	ug/L		5/25/2017 16:58
1,1-Dichloroethane	< 2.00	ug/L		5/25/2017 16:58
1,1-Dichloroethene	< 2.00	ug/L		5/25/2017 16:58
1,2,3-Trichlorobenzene	< 5.00	ug/L		5/25/2017 16:58
1,2,4-Trichlorobenzene	< 5.00	ug/L		5/25/2017 16:58
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		5/25/2017 16:58
1,2-Dibromoethane	< 2.00	ug/L		5/25/2017 16:58
1,2-Dichlorobenzene	< 2.00	ug/L		5/25/2017 16:58
1,2-Dichloroethane	< 2.00	ug/L		5/25/2017 16:58
1,2-Dichloropropane	< 2.00	ug/L		5/25/2017 16:58
1,3-Dichlorobenzene	< 2.00	ug/L		5/25/2017 16:58
1,4-Dichlorobenzene	< 2.00	ug/L		5/25/2017 16:58
1,4-dioxane	< 20.0	ug/L		5/25/2017 16:58
2-Butanone	< 10.0	ug/L		5/25/2017 16:58
2-Hexanone	< 5.00	ug/L		5/25/2017 16:58
4-Methyl-2-pentanone	< 5.00	ug/L		5/25/2017 16:58
Acetone	< 10.0	ug/L		5/25/2017 16:58
Benzene	< 1.00	ug/L		5/25/2017 16:58
Bromochloromethane	< 5.00	ug/L		5/25/2017 16:58
Bromodichloromethane	< 2.00	ug/L		5/25/2017 16:58
Bromoform	< 5.00	ug/L		5/25/2017 16:58
Bromomethane	< 2.00	ug/L		5/25/2017 16:58
Carbon disulfide	< 2.00	ug/L		5/25/2017 16:58
Carbon Tetrachloride	< 2.00	ug/L		5/25/2017 16:58
Chlorobenzene	< 2.00	ug/L		5/25/2017 16:58
Chloroethane	< 2.00	ug/L		5/25/2017 16:58
Chloroform	< 2.00	ug/L		5/25/2017 16:58

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**Client:** C&S Companies

**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-7-051717

**Lab Sample ID:** 172147-02

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

Chloromethane	< 2.00	ug/L	5/25/2017	16:58
cis-1,2-Dichloroethene	< 2.00	ug/L	5/25/2017	16:58
cis-1,3-Dichloropropene	< 2.00	ug/L	5/25/2017	16:58
Cyclohexane	< 10.0	ug/L	5/25/2017	16:58
Dibromochloromethane	< 2.00	ug/L	5/25/2017	16:58
Dichlorodifluoromethane	< 2.00	ug/L	5/25/2017	16:58
Ethylbenzene	< 2.00	ug/L	5/25/2017	16:58
Freon 113	< 2.00	ug/L	5/25/2017	16:58
Isopropylbenzene	< 2.00	ug/L	5/25/2017	16:58
m,p-Xylene	< 2.00	ug/L	5/25/2017	16:58
Methyl acetate	< 2.00	ug/L	5/25/2017	16:58
Methyl tert-butyl Ether	< 2.00	ug/L	5/25/2017	16:58
Methylcyclohexane	< 2.00	ug/L	5/25/2017	16:58
Methylene chloride	< 5.00	ug/L	5/25/2017	16:58
o-Xylene	< 2.00	ug/L	5/25/2017	16:58
Styrene	< 5.00	ug/L	5/25/2017	16:58
Tetrachloroethene	< 2.00	ug/L	5/25/2017	16:58
Toluene	< 2.00	ug/L	5/25/2017	16:58
trans-1,2-Dichloroethene	< 2.00	ug/L	5/25/2017	16:58
trans-1,3-Dichloropropene	< 2.00	ug/L	5/25/2017	16:58
Trichloroethene	< 2.00	ug/L	5/25/2017	16:58
Trichlorofluoromethane	< 2.00	ug/L	5/25/2017	16:58
Vinyl chloride	< 2.00	ug/L	5/25/2017	16:58

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>99.8</b>	77.8 - 124		5/25/2017 16:58
4-Bromofluorobenzene	<b>87.8</b>	78 - 117		5/25/2017 16:58
Pentafluorobenzene	<b>96.9</b>	83.2 - 118		5/25/2017 16:58
Toluene-D8	<b>90.9</b>	83.7 - 116		5/25/2017 16:58

**Method Reference(s):** EPA 8260C  
EPA 5030C  
**Data File:** x41781.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

**Client:** C&S Companies
**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-6-051717

**Lab Sample ID:** 172147-03

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 20.0	ug/L		5/25/2017 17:22
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		5/25/2017 17:22
1,1,2-Trichloroethane	< 20.0	ug/L		5/25/2017 17:22
1,1-Dichloroethane	< 20.0	ug/L		5/25/2017 17:22
1,1-Dichloroethene	< 20.0	ug/L		5/25/2017 17:22
1,2,3-Trichlorobenzene	< 50.0	ug/L		5/25/2017 17:22
1,2,4-Trichlorobenzene	< 50.0	ug/L		5/25/2017 17:22
1,2-Dibromo-3-Chloropropane	< 100	ug/L		5/25/2017 17:22
1,2-Dibromoethane	< 20.0	ug/L		5/25/2017 17:22
1,2-Dichlorobenzene	< 20.0	ug/L		5/25/2017 17:22
1,2-Dichloroethane	< 20.0	ug/L		5/25/2017 17:22
1,2-Dichloropropane	< 20.0	ug/L		5/25/2017 17:22
1,3-Dichlorobenzene	< 20.0	ug/L		5/25/2017 17:22
1,4-Dichlorobenzene	< 20.0	ug/L		5/25/2017 17:22
1,4-dioxane	< 200	ug/L		5/25/2017 17:22
2-Butanone	< 100	ug/L		5/25/2017 17:22
2-Hexanone	< 50.0	ug/L		5/25/2017 17:22
4-Methyl-2-pentanone	< 50.0	ug/L		5/25/2017 17:22
Acetone	< 100	ug/L		5/25/2017 17:22
Benzene	<b>113</b>	ug/L		5/25/2017 17:22
Bromochloromethane	< 50.0	ug/L		5/25/2017 17:22
Bromodichloromethane	< 20.0	ug/L		5/25/2017 17:22
Bromoform	< 50.0	ug/L		5/25/2017 17:22
Bromomethane	< 20.0	ug/L		5/25/2017 17:22
Carbon disulfide	< 20.0	ug/L		5/25/2017 17:22
Carbon Tetrachloride	< 20.0	ug/L		5/25/2017 17:22
Chlorobenzene	< 20.0	ug/L		5/25/2017 17:22
Chloroethane	< 20.0	ug/L		5/25/2017 17:22
Chloroform	< 20.0	ug/L		5/25/2017 17:22

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Lab Project ID: 172147

Client: C&S Companies

Project Reference: Conventus

Sample Identifier: BCP-MW-6-051717

Lab Sample ID: 172147-03

Date Sampled: 5/17/2017

Matrix: Groundwater

Date Received: 5/22/2017

Chloromethane	< 20.0	ug/L	5/25/2017	17:22
cis-1,2-Dichloroethene	< 20.0	ug/L	5/25/2017	17:22
cis-1,3-Dichloropropene	< 20.0	ug/L	5/25/2017	17:22
Cyclohexane	< 100	ug/L	5/25/2017	17:22
Dibromochloromethane	< 20.0	ug/L	5/25/2017	17:22
Dichlorodifluoromethane	< 20.0	ug/L	5/25/2017	17:22
Ethylbenzene	<b>175</b>	ug/L	5/25/2017	17:22
Freon 113	< 20.0	ug/L	5/25/2017	17:22
Isopropylbenzene	< 20.0	ug/L	5/25/2017	17:22
m,p-Xylene	<b>135</b>	ug/L	5/25/2017	17:22
Methyl acetate	< 20.0	ug/L	5/25/2017	17:22
Methyl tert-butyl Ether	< 20.0	ug/L	5/25/2017	17:22
Methylcyclohexane	<b>35.3</b>	ug/L	5/25/2017	17:22
Methylene chloride	< 50.0	ug/L	5/25/2017	17:22
o-Xylene	<b>55.7</b>	ug/L	5/25/2017	17:22
Styrene	< 50.0	ug/L	5/25/2017	17:22
Tetrachloroethene	< 20.0	ug/L	5/25/2017	17:22
Toluene	<b>147</b>	ug/L	5/25/2017	17:22
trans-1,2-Dichloroethene	< 20.0	ug/L	5/25/2017	17:22
trans-1,3-Dichloropropene	< 20.0	ug/L	5/25/2017	17:22
Trichloroethene	< 20.0	ug/L	5/25/2017	17:22
Trichlorofluoromethane	< 20.0	ug/L	5/25/2017	17:22
Vinyl chloride	< 20.0	ug/L	5/25/2017	17:22

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	<b>96.7</b>	77.8 - 124		5/25/2017 17:22
4-Bromofluorobenzene	<b>93.1</b>	78 - 117		5/25/2017 17:22
Pentafluorobenzene	<b>99.5</b>	83.2 - 118		5/25/2017 17:22
Toluene-D8	<b>95.4</b>	83.7 - 116		5/25/2017 17:22

Method Reference(s): EPA 8260C  
EPA 5030C  
Data File: x41782.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

**Client:** C&S Companies
**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-3-051717

**Lab Sample ID:** 172147-04

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 20.0	ug/L		5/25/2017 17:46
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		5/25/2017 17:46
1,1,2-Trichloroethane	< 20.0	ug/L		5/25/2017 17:46
1,1-Dichloroethane	< 20.0	ug/L		5/25/2017 17:46
1,1-Dichloroethene	< 20.0	ug/L		5/25/2017 17:46
1,2,3-Trichlorobenzene	< 50.0	ug/L		5/25/2017 17:46
1,2,4-Trichlorobenzene	< 50.0	ug/L		5/25/2017 17:46
1,2-Dibromo-3-Chloropropane	< 100	ug/L		5/25/2017 17:46
1,2-Dibromoethane	< 20.0	ug/L		5/25/2017 17:46
1,2-Dichlorobenzene	< 20.0	ug/L		5/25/2017 17:46
1,2-Dichloroethane	< 20.0	ug/L		5/25/2017 17:46
1,2-Dichloropropane	< 20.0	ug/L		5/25/2017 17:46
1,3-Dichlorobenzene	< 20.0	ug/L		5/25/2017 17:46
1,4-Dichlorobenzene	< 20.0	ug/L		5/25/2017 17:46
1,4-dioxane	< 200	ug/L		5/25/2017 17:46
2-Butanone	<b>201</b>	ug/L		5/25/2017 17:46
2-Hexanone	< 50.0	ug/L		5/25/2017 17:46
4-Methyl-2-pentanone	< 50.0	ug/L		5/25/2017 17:46
Acetone	< 100	ug/L		5/25/2017 17:46
Benzene	<b>451</b>	ug/L		5/25/2017 17:46
Bromochloromethane	< 50.0	ug/L		5/25/2017 17:46
Bromodichloromethane	< 20.0	ug/L		5/25/2017 17:46
Bromoform	< 50.0	ug/L		5/25/2017 17:46
Bromomethane	< 20.0	ug/L		5/25/2017 17:46
Carbon disulfide	< 20.0	ug/L		5/25/2017 17:46
Carbon Tetrachloride	< 20.0	ug/L		5/25/2017 17:46
Chlorobenzene	< 20.0	ug/L		5/25/2017 17:46
Chloroethane	< 20.0	ug/L		5/25/2017 17:46
Chloroform	< 20.0	ug/L		5/25/2017 17:46

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**Client:** C&S Companies

**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-3-051717

**Lab Sample ID:** 172147-04

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

Chloromethane	< 20.0	ug/L	5/25/2017	17:46
cis-1,2-Dichloroethene	< 20.0	ug/L	5/25/2017	17:46
cis-1,3-Dichloropropene	< 20.0	ug/L	5/25/2017	17:46
Cyclohexane	< 100	ug/L	5/25/2017	17:46
Dibromochloromethane	< 20.0	ug/L	5/25/2017	17:46
Dichlorodifluoromethane	< 20.0	ug/L	5/25/2017	17:46
Ethylbenzene	<b>197</b>	ug/L	5/25/2017	17:46
Freon 113	< 20.0	ug/L	5/25/2017	17:46
Isopropylbenzene	< 20.0	ug/L	5/25/2017	17:46
m,p-Xylene	<b>639</b>	ug/L	5/25/2017	17:46
Methyl acetate	< 20.0	ug/L	5/25/2017	17:46
Methyl tert-butyl Ether	< 20.0	ug/L	5/25/2017	17:46
Methylcyclohexane	<b>29.5</b>	ug/L	5/25/2017	17:46
Methylene chloride	< 50.0	ug/L	5/25/2017	17:46
o-Xylene	< 20.0	ug/L	5/25/2017	17:46
Styrene	< 50.0	ug/L	5/25/2017	17:46
Tetrachloroethene	< 20.0	ug/L	5/25/2017	17:46
Toluene	<b>22.6</b>	ug/L	5/25/2017	17:46
trans-1,2-Dichloroethene	< 20.0	ug/L	5/25/2017	17:46
trans-1,3-Dichloropropene	< 20.0	ug/L	5/25/2017	17:46
Trichloroethene	< 20.0	ug/L	5/25/2017	17:46
Trichlorofluoromethane	< 20.0	ug/L	5/25/2017	17:46
Vinyl chloride	< 20.0	ug/L	5/25/2017	17:46

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>98.5</b>	77.8 - 124		5/25/2017 17:46
4-Bromofluorobenzene	<b>95.9</b>	78 - 117		5/25/2017 17:46
Pentafluorobenzene	<b>98.7</b>	83.2 - 118		5/25/2017 17:46
Toluene-D8	<b>93.7</b>	83.7 - 116		5/25/2017 17:46

**Method Reference(s):** EPA 8260C  
EPA 5030C  
**Data File:** x41783.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

**Client:** C&S Companies
**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-4-051717

**Lab Sample ID:** 172147-05

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 20.0	ug/L		5/25/2017 18:10
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		5/25/2017 18:10
1,1,2-Trichloroethane	< 20.0	ug/L		5/25/2017 18:10
1,1-Dichloroethane	< 20.0	ug/L		5/25/2017 18:10
1,1-Dichloroethene	< 20.0	ug/L		5/25/2017 18:10
1,2,3-Trichlorobenzene	< 50.0	ug/L		5/25/2017 18:10
1,2,4-Trichlorobenzene	< 50.0	ug/L		5/25/2017 18:10
1,2-Dibromo-3-Chloropropane	< 100	ug/L		5/25/2017 18:10
1,2-Dibromoethane	< 20.0	ug/L		5/25/2017 18:10
1,2-Dichlorobenzene	< 20.0	ug/L		5/25/2017 18:10
1,2-Dichloroethane	< 20.0	ug/L		5/25/2017 18:10
1,2-Dichloropropane	< 20.0	ug/L		5/25/2017 18:10
1,3-Dichlorobenzene	< 20.0	ug/L		5/25/2017 18:10
1,4-Dichlorobenzene	< 20.0	ug/L		5/25/2017 18:10
1,4-dioxane	< 200	ug/L		5/25/2017 18:10
2-Butanone	< 100	ug/L		5/25/2017 18:10
2-Hexanone	< 50.0	ug/L		5/25/2017 18:10
4-Methyl-2-pentanone	< 50.0	ug/L		5/25/2017 18:10
Acetone	< 100	ug/L		5/25/2017 18:10
Benzene	<b>10.8</b>	ug/L		5/25/2017 18:10
Bromochloromethane	< 50.0	ug/L		5/25/2017 18:10
Bromodichloromethane	< 20.0	ug/L		5/25/2017 18:10
Bromoform	< 50.0	ug/L		5/25/2017 18:10
Bromomethane	< 20.0	ug/L		5/25/2017 18:10
Carbon disulfide	< 20.0	ug/L		5/25/2017 18:10
Carbon Tetrachloride	< 20.0	ug/L		5/25/2017 18:10
Chlorobenzene	< 20.0	ug/L		5/25/2017 18:10
Chloroethane	< 20.0	ug/L		5/25/2017 18:10
Chloroform	< 20.0	ug/L		5/25/2017 18:10

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Lab Project ID: 172147

Client: C&S Companies

Project Reference: Conventus

Sample Identifier: BCP-MW-4-051717

Lab Sample ID: 172147-05

Date Sampled: 5/17/2017

Matrix: Groundwater

Date Received: 5/22/2017

Chloromethane	< 20.0	ug/L	5/25/2017	18:10
cis-1,2-Dichloroethene	< 20.0	ug/L	5/25/2017	18:10
cis-1,3-Dichloropropene	< 20.0	ug/L	5/25/2017	18:10
Cyclohexane	<b>235</b>	ug/L	5/25/2017	18:10
Dibromochloromethane	< 20.0	ug/L	5/25/2017	18:10
Dichlorodifluoromethane	< 20.0	ug/L	5/25/2017	18:10
Ethylbenzene	<b>1220</b>	ug/L	5/25/2017	18:10
Freon 113	< 20.0	ug/L	5/25/2017	18:10
Isopropylbenzene	< 20.0	ug/L	5/25/2017	18:10
m,p-Xylene	<b>1260</b>	ug/L	5/25/2017	18:10
Methyl acetate	< 20.0	ug/L	5/25/2017	18:10
Methyl tert-butyl Ether	< 20.0	ug/L	5/25/2017	18:10
Methylcyclohexane	<b>99.7</b>	ug/L	5/25/2017	18:10
Methylene chloride	< 50.0	ug/L	5/25/2017	18:10
o-Xylene	<b>29.7</b>	ug/L	5/25/2017	18:10
Styrene	< 50.0	ug/L	5/25/2017	18:10
Tetrachloroethene	< 20.0	ug/L	5/25/2017	18:10
Toluene	<b>92.2</b>	ug/L	5/25/2017	18:10
trans-1,2-Dichloroethene	< 20.0	ug/L	5/25/2017	18:10
trans-1,3-Dichloropropene	< 20.0	ug/L	5/25/2017	18:10
Trichloroethene	< 20.0	ug/L	5/25/2017	18:10
Trichlorofluoromethane	< 20.0	ug/L	5/25/2017	18:10
Vinyl chloride	< 20.0	ug/L	5/25/2017	18:10

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>95.5</b>	77.8 - 124		5/25/2017 18:10
4-Bromofluorobenzene	<b>98.8</b>	78 - 117		5/25/2017 18:10
Pentafluorobenzene	<b>102</b>	83.2 - 118		5/25/2017 18:10
Toluene-D8	<b>99.0</b>	83.7 - 116		5/25/2017 18:10

Method Reference(s): EPA 8260C  
EPA 5030C  
Data File: x41784.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Lab Project ID: 172147

Client: C&S Companies

Project Reference: Conventus

Sample Identifier: BCP-MW-5-051717

Lab Sample ID: 172147-06

Date Sampled: 5/17/2017

Matrix: Groundwater

Date Received: 5/22/2017

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 40.0	ug/L		5/25/2017 18:33
1,1,2,2-Tetrachloroethane	< 40.0	ug/L		5/25/2017 18:33
1,1,2-Trichloroethane	< 40.0	ug/L		5/25/2017 18:33
1,1-Dichloroethane	< 40.0	ug/L		5/25/2017 18:33
1,1-Dichloroethene	< 40.0	ug/L		5/25/2017 18:33
1,2,3-Trichlorobenzene	< 100	ug/L		5/25/2017 18:33
1,2,4-Trichlorobenzene	< 100	ug/L		5/25/2017 18:33
1,2-Dibromo-3-Chloropropane	< 200	ug/L		5/25/2017 18:33
1,2-Dibromoethane	< 40.0	ug/L		5/25/2017 18:33
1,2-Dichlorobenzene	< 40.0	ug/L		5/25/2017 18:33
1,2-Dichloroethane	< 40.0	ug/L		5/25/2017 18:33
1,2-Dichloropropane	< 40.0	ug/L		5/25/2017 18:33
1,3-Dichlorobenzene	< 40.0	ug/L		5/25/2017 18:33
1,4-Dichlorobenzene	< 40.0	ug/L		5/25/2017 18:33
1,4-dioxane	< 400	ug/L		5/25/2017 18:33
2-Butanone	< 200	ug/L		5/25/2017 18:33
2-Hexanone	< 100	ug/L		5/25/2017 18:33
4-Methyl-2-pentanone	< 100	ug/L		5/25/2017 18:33
Acetone	< 200	ug/L		5/25/2017 18:33
Benzene	<b>428</b>	ug/L		5/25/2017 18:33
Bromochloromethane	< 100	ug/L		5/25/2017 18:33
Bromodichloromethane	< 40.0	ug/L		5/25/2017 18:33
Bromoform	< 100	ug/L		5/25/2017 18:33
Bromomethane	< 40.0	ug/L		5/25/2017 18:33
Carbon disulfide	< 40.0	ug/L		5/25/2017 18:33
Carbon Tetrachloride	< 40.0	ug/L		5/25/2017 18:33
Chlorobenzene	< 40.0	ug/L		5/25/2017 18:33
Chloroethane	< 40.0	ug/L		5/25/2017 18:33
Chloroform	< 40.0	ug/L		5/25/2017 18:33

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



**Client:** C&S Companies

**Project Reference:** Conventus

**Sample Identifier:** BCP-MW-5-051717

**Lab Sample ID:** 172147-06

**Date Sampled:** 5/17/2017

**Matrix:** Groundwater

**Date Received:** 5/22/2017

Chloromethane	< 40.0	ug/L	5/25/2017	18:33
cis-1,2-Dichloroethene	< 40.0	ug/L	5/25/2017	18:33
cis-1,3-Dichloropropene	< 40.0	ug/L	5/25/2017	18:33
Cyclohexane	< 200	ug/L	5/25/2017	18:33
Dibromochloromethane	< 40.0	ug/L	5/25/2017	18:33
Dichlorodifluoromethane	< 40.0	ug/L	5/25/2017	18:33
Ethylbenzene	<b>584</b>	ug/L	5/25/2017	18:33
Freon 113	< 40.0	ug/L	5/25/2017	18:33
Isopropylbenzene	< 40.0	ug/L	5/25/2017	18:33
m,p-Xylene	<b>2930</b>	ug/L	5/25/2017	18:33
Methyl acetate	< 40.0	ug/L	5/25/2017	18:33
Methyl tert-butyl Ether	< 40.0	ug/L	5/25/2017	18:33
Methylcyclohexane	<b>49.0</b>	ug/L	5/25/2017	18:33
Methylene chloride	< 100	ug/L	5/25/2017	18:33
o-Xylene	<b>70.7</b>	ug/L	5/25/2017	18:33
Styrene	< 100	ug/L	5/25/2017	18:33
Tetrachloroethene	< 40.0	ug/L	5/25/2017	18:33
Toluene	< 40.0	ug/L	5/25/2017	18:33
trans-1,2-Dichloroethene	< 40.0	ug/L	5/25/2017	18:33
trans-1,3-Dichloropropene	< 40.0	ug/L	5/25/2017	18:33
Trichloroethene	< 40.0	ug/L	5/25/2017	18:33
Trichlorofluoromethane	< 40.0	ug/L	5/25/2017	18:33
Vinyl chloride	< 40.0	ug/L	5/25/2017	18:33

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>95.1</b>	77.8 - 124		5/25/2017 18:33
4-Bromofluorobenzene	<b>95.7</b>	78 - 117		5/25/2017 18:33
Pentafluorobenzene	<b>99.5</b>	83.2 - 118		5/25/2017 18:33
Toluene-D8	<b>95.7</b>	83.7 - 116		5/25/2017 18:33

**Method Reference(s):** EPA 8260C  
EPA 5030C  
**Data File:** x41785.D

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## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# CHAIN OF CUSTODY

1 of 2



PARADIGM ENVIRONMENTAL SERVICES, INC.

<b>REPORT TO:</b> CLIENT: <i>C&amp;S Engineers</i> ADDRESS: <i>141 Elm Street</i> CITY: <i>Buffalo</i> STATE: <i>NY</i> ZIP: <i>14203</i> PHONE: <i>716-935-3021</i> ATTN: <i>Cathy Martin</i>		<b>INVOICE TO:</b> CLIENT: <i>Same</i> ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____ PHONE: _____ ATTN: _____		LAB PROJECT ID <b>172147</b>
<b>PROJECT REFERENCE</b> <i>Conventus</i>		<b>Matrix Codes:</b> AQ - Aqueous Liquid NG - Non-Aqueous Liquid WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air		Quotation #: Email:

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MCATD RIS	NONUMBERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
5/17/17	9:45	X	X	BCP-MW-1-051717	WG	Z		01
	10:23	X	X	BCP-MW-7-051717				02
	11:45	X	X	BCP-MW-6-051717				03
	12:36	X	X	BCP-MW-3-051717				04
	13:17	X	X	BCP-MW-4-051717				05
	14:05	X	X	BCP-MW-5-051717				06

<b>Turnaround Time</b> Availability contingent upon lab approval; additional fees may apply.	<b>Report Supplements</b>
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>
Rush 1 day <input type="checkbox"/>	Other <input type="checkbox"/>
Other <input type="checkbox"/>	Other <input type="checkbox"/>

Sampled By: <i>Cathy Martin</i> Date/Time: 5/17/17 2:30 PM	Total Cost:
Requisitioned By: <i>[Signature]</i> Date/Time: 5/19/17 9:25	P.I.F.:
Received By: <i>[Signature]</i> Date/Time: 5/22/17 10:48	Received @ Lab/By: <i>S. C. [Signature]</i> Date/Time: 5/19/17 16:22

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



### Chain of Custody Supplement

Client: C + S Engineers  
 Lab Project ID: 172147

Completed by: Glenn Pezzulo  
 Date: 5/22/17

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>5°C cool</u>		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

July 18, 2017

Cody Martin  
C&S Companies  
141 Elm Street  
Suite 100  
Buffalo, NY 14203

RE: Project: CONVENTUS #N46001001  
Pace Project No.: 7023628

Dear Cody Martin:

Enclosed are the analytical results for sample(s) received by the laboratory on July 08, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



James Murphy  
james.murphy@pacelabs.com  
(518)346-4592  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

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### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

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## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-1-070517	Lab ID: 7023628001	Collected: 07/05/17 09:15	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	5.1	ug/L	5.0	1		07/12/17 22:05	67-64-1	CC
Benzene	ND	ug/L	1.0	1		07/12/17 22:05	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/12/17 22:05	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/12/17 22:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/12/17 22:05	75-27-4	
Bromoform	ND	ug/L	1.0	1		07/12/17 22:05	75-25-2	
Bromomethane	ND	ug/L	1.0	1		07/12/17 22:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/12/17 22:05	78-93-3	IL
n-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		07/12/17 22:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		07/12/17 22:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/12/17 22:05	108-90-7	
Chlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 22:05	75-45-6	N3
Chloroethane	ND	ug/L	1.0	1		07/12/17 22:05	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/12/17 22:05	67-66-3	
Chloromethane	ND	ug/L	1.0	1		07/12/17 22:05	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 22:05	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 22:05	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		07/12/17 22:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/12/17 22:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		07/12/17 22:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:05	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		07/12/17 22:05	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 22:05	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/12/17 22:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/12/17 22:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:05	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:05	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:05	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:05	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:05	10061-02-6	L1
1,4-Diethylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	105-05-5	N3
Ethanol	ND	ug/L	250	1		07/12/17 22:05	64-17-5	
Ethylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/12/17 22:05	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		07/12/17 22:05	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/12/17 22:05	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/12/17 22:05	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		07/12/17 22:05	75-09-2	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-1-070517	Lab ID: 7023628001	Collected: 07/05/17 09:15	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/12/17 22:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/12/17 22:05	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		07/12/17 22:05	91-20-3	CC
n-Propylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	103-65-1	
Styrene	ND	ug/L	1.0	1		07/12/17 22:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 22:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 22:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/12/17 22:05	127-18-4	
1,2,4,5-tetramethylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	95-93-2	N3
Toluene	ND	ug/L	1.0	1		07/12/17 22:05	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:05	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:05	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/12/17 22:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/12/17 22:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		07/12/17 22:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/12/17 22:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		07/12/17 22:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/12/17 22:05	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		07/12/17 22:05	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		07/12/17 22:05	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		07/12/17 22:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/12/17 22:05	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	90	%.	68-153	1		07/12/17 22:05	17060-07-0	
4-Bromofluorobenzene (S)	97	%.	79-124	1		07/12/17 22:05	460-00-4	
Toluene-d8 (S)	91	%.	69-124	1		07/12/17 22:05	2037-26-5	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-7-070517	Lab ID: 7023628002	Collected: 07/05/17 09:58	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	ND	ug/L	5.0	1		07/12/17 22:24	67-64-1	CC
Benzene	2.3	ug/L	1.0	1		07/12/17 22:24	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/12/17 22:24	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/12/17 22:24	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/12/17 22:24	75-27-4	
Bromoform	ND	ug/L	1.0	1		07/12/17 22:24	75-25-2	
Bromomethane	ND	ug/L	1.0	1		07/12/17 22:24	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/12/17 22:24	78-93-3	IL
n-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		07/12/17 22:24	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		07/12/17 22:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/12/17 22:24	108-90-7	
Chlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 22:24	75-45-6	N3
Chloroethane	ND	ug/L	1.0	1		07/12/17 22:24	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/12/17 22:24	67-66-3	
Chloromethane	ND	ug/L	1.0	1		07/12/17 22:24	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 22:24	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 22:24	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		07/12/17 22:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/12/17 22:24	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		07/12/17 22:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:24	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		07/12/17 22:24	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 22:24	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/12/17 22:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/12/17 22:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:24	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:24	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:24	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:24	10061-02-6	L1
1,4-Diethylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	105-05-5	N3
Ethanol	ND	ug/L	250	1		07/12/17 22:24	64-17-5	
Ethylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/12/17 22:24	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		07/12/17 22:24	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/12/17 22:24	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/12/17 22:24	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		07/12/17 22:24	75-09-2	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-7-070517	Lab ID: 7023628002	Collected: 07/05/17 09:58	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/12/17 22:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/12/17 22:24	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		07/12/17 22:24	91-20-3	CC
n-Propylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	103-65-1	
Styrene	ND	ug/L	1.0	1		07/12/17 22:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 22:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 22:24	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/12/17 22:24	127-18-4	
1,2,4,5-tetramethylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	95-93-2	N3
Toluene	ND	ug/L	1.0	1		07/12/17 22:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/12/17 22:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/12/17 22:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		07/12/17 22:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/12/17 22:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		07/12/17 22:24	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/12/17 22:24	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		07/12/17 22:24	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		07/12/17 22:24	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		07/12/17 22:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/12/17 22:24	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	91	%.	68-153	1		07/12/17 22:24	17060-07-0	
4-Bromofluorobenzene (S)	97	%.	79-124	1		07/12/17 22:24	460-00-4	
Toluene-d8 (S)	92	%.	69-124	1		07/12/17 22:24	2037-26-5	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-6-070517	Lab ID: 7023628003	Collected: 07/05/17 11:10	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	<b>102</b>	ug/L	5.0	1		07/12/17 22:42	67-64-1	CC
Benzene	<b>131</b>	ug/L	1.0	1		07/12/17 22:42	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/12/17 22:42	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/12/17 22:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/12/17 22:42	75-27-4	
Bromoform	ND	ug/L	1.0	1		07/12/17 22:42	75-25-2	
Bromomethane	ND	ug/L	1.0	1		07/12/17 22:42	74-83-9	
2-Butanone (MEK)	<b>19.6</b>	ug/L	5.0	1		07/12/17 22:42	78-93-3	IL
n-Butylbenzene	<b>4.6</b>	ug/L	1.0	1		07/12/17 22:42	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:42	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/12/17 22:42	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		07/12/17 22:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		07/12/17 22:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/12/17 22:42	108-90-7	
Chlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 22:42	75-45-6	N3
Chloroethane	ND	ug/L	1.0	1		07/12/17 22:42	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/12/17 22:42	67-66-3	
Chloromethane	ND	ug/L	1.0	1		07/12/17 22:42	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 22:42	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 22:42	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		07/12/17 22:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/12/17 22:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		07/12/17 22:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:42	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		07/12/17 22:42	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 22:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/12/17 22:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/12/17 22:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 22:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:42	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:42	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 22:42	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 22:42	10061-02-6	L1
1,4-Diethylbenzene	<b>32.9</b>	ug/L	1.0	1		07/12/17 22:42	105-05-5	N3
Ethanol	ND	ug/L	250	1		07/12/17 22:42	64-17-5	
Ethylbenzene	<b>85.5</b>	ug/L	1.0	1		07/12/17 22:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/12/17 22:42	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		07/12/17 22:42	591-78-6	
Isopropylbenzene (Cumene)	<b>2.5</b>	ug/L	1.0	1		07/12/17 22:42	98-82-8	
p-Isopropyltoluene	<b>1.6</b>	ug/L	1.0	1		07/12/17 22:42	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		07/12/17 22:42	75-09-2	

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## ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-6-070517		Lab ID: 7023628003		Collected: 07/05/17 11:10		Received: 07/08/17 10:20		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C							
4-Methyl-2-pentanone (MIBK)	6.2	ug/L	5.0	1		07/12/17 22:42	108-10-1		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/12/17 22:42	1634-04-4		
Naphthalene	86.6	ug/L	1.0	1		07/12/17 22:42	91-20-3	CC	
n-Propylbenzene	11.3	ug/L	1.0	1		07/12/17 22:42	103-65-1		
Styrene	ND	ug/L	1.0	1		07/12/17 22:42	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 22:42	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 22:42	79-34-5		
Tetrachloroethene	ND	ug/L	1.0	1		07/12/17 22:42	127-18-4		
1,2,4,5-tetramethylbenzene	14.3	ug/L	1.0	1		07/12/17 22:42	95-93-2	N3	
Toluene	22.5	ug/L	4.0	4		07/13/17 16:11	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:42	87-61-6		
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 22:42	120-82-1		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/12/17 22:42	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/12/17 22:42	79-00-5		
Trichloroethene	ND	ug/L	1.0	1		07/12/17 22:42	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		07/12/17 22:42	75-69-4		
1,2,3-Trichloropropane	ND	ug/L	1.0	1		07/12/17 22:42	96-18-4		
1,2,4-Trimethylbenzene	134	ug/L	1.0	1		07/12/17 22:42	95-63-6		
1,3,5-Trimethylbenzene	74.3	ug/L	1.0	1		07/12/17 22:42	108-67-8		
Vinyl chloride	ND	ug/L	1.0	1		07/12/17 22:42	75-01-4		
Xylene (Total)	438	ug/L	8.0	4		07/13/17 16:11	1330-20-7		
m&p-Xylene	361	ug/L	2.0	1		07/12/17 22:42	179601-23-1		
o-Xylene	77.4	ug/L	4.0	4		07/13/17 16:11	95-47-6		
<b>Surrogates</b>									
1,2-Dichloroethane-d4 (S)	95	%.	68-153	1		07/12/17 22:42	17060-07-0		
4-Bromofluorobenzene (S)	94	%.	79-124	1		07/12/17 22:42	460-00-4		
Toluene-d8 (S)	93	%.	69-124	1		07/12/17 22:42	2037-26-5		

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-3-070517	Lab ID: 7023628004	Collected: 07/05/17 12:00	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	166	ug/L	10.0	2		07/13/17 17:23	67-64-1	
Benzene	3.3	ug/L	1.0	1		07/12/17 23:00	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/12/17 23:00	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/12/17 23:00	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/12/17 23:00	75-27-4	
Bromoform	ND	ug/L	1.0	1		07/12/17 23:00	75-25-2	
Bromomethane	ND	ug/L	1.0	1		07/12/17 23:00	74-83-9	
2-Butanone (MEK)	51.4	ug/L	5.0	1		07/12/17 23:00	78-93-3	IL
n-Butylbenzene	ND	ug/L	1.0	1		07/12/17 23:00	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/12/17 23:00	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/12/17 23:00	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		07/12/17 23:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		07/12/17 23:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/12/17 23:00	108-90-7	
Chlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 23:00	75-45-6	N3
Chloroethane	ND	ug/L	1.0	1		07/12/17 23:00	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/12/17 23:00	67-66-3	
Chloromethane	ND	ug/L	1.0	1		07/12/17 23:00	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 23:00	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 23:00	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		07/12/17 23:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/12/17 23:00	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		07/12/17 23:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:00	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		07/12/17 23:00	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 23:00	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/12/17 23:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/12/17 23:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:00	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:00	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:00	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:00	10061-02-6	L1
1,4-Diethylbenzene	ND	ug/L	1.0	1		07/12/17 23:00	105-05-5	N3
Ethanol	ND	ug/L	250	1		07/12/17 23:00	64-17-5	
Ethylbenzene	2.4	ug/L	1.0	1		07/12/17 23:00	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/12/17 23:00	87-68-3	
2-Hexanone	8.0	ug/L	5.0	1		07/12/17 23:00	591-78-6	CC
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/12/17 23:00	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/12/17 23:00	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		07/12/17 23:00	75-09-2	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-3-070517	Lab ID: 7023628004	Collected: 07/05/17 12:00	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
4-Methyl-2-pentanone (MIBK)	5.0	ug/L	5.0	1		07/12/17 23:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/12/17 23:00	1634-04-4	
Naphthalene	14.0	ug/L	1.0	1		07/12/17 23:00	91-20-3	CC
n-Propylbenzene	ND	ug/L	1.0	1		07/12/17 23:00	103-65-1	
Styrene	ND	ug/L	1.0	1		07/12/17 23:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 23:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 23:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/12/17 23:00	127-18-4	
1,2,4,5-tetramethylbenzene	1.1	ug/L	1.0	1		07/12/17 23:00	95-93-2	N3
Toluene	1.6	ug/L	1.0	1		07/12/17 23:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/12/17 23:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/12/17 23:00	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		07/12/17 23:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/12/17 23:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		07/12/17 23:00	96-18-4	
1,2,4-Trimethylbenzene	4.9	ug/L	1.0	1		07/12/17 23:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/12/17 23:00	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		07/12/17 23:00	75-01-4	
Xylene (Total)	7.1	ug/L	2.0	1		07/12/17 23:00	1330-20-7	
m&p-Xylene	5.8	ug/L	2.0	1		07/12/17 23:00	179601-23-1	
o-Xylene	1.3	ug/L	1.0	1		07/12/17 23:00	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	103	%.	68-153	1		07/12/17 23:00	17060-07-0	
4-Bromofluorobenzene (S)	92	%.	79-124	1		07/12/17 23:00	460-00-4	
Toluene-d8 (S)	92	%.	69-124	1		07/12/17 23:00	2037-26-5	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-4-070517	Lab ID: 7023628005	Collected: 07/05/17 13:00	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	38.2	ug/L	5.0	1		07/12/17 23:18	67-64-1	CC
Benzene	1.3	ug/L	1.0	1		07/12/17 23:18	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/12/17 23:18	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/12/17 23:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/12/17 23:18	75-27-4	
Bromoform	ND	ug/L	1.0	1		07/12/17 23:18	75-25-2	
Bromomethane	ND	ug/L	1.0	1		07/12/17 23:18	74-83-9	
2-Butanone (MEK)	6.9	ug/L	5.0	1		07/12/17 23:18	78-93-3	IL
n-Butylbenzene	1.7	ug/L	1.0	1		07/12/17 23:18	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/12/17 23:18	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/12/17 23:18	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		07/12/17 23:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		07/12/17 23:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/12/17 23:18	108-90-7	
Chlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 23:18	75-45-6	N3
Chloroethane	ND	ug/L	1.0	1		07/12/17 23:18	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/12/17 23:18	67-66-3	
Chloromethane	ND	ug/L	1.0	1		07/12/17 23:18	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 23:18	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 23:18	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		07/12/17 23:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/12/17 23:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		07/12/17 23:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		07/12/17 23:18	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 23:18	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/12/17 23:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/12/17 23:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:18	10061-02-6	L1
1,4-Diethylbenzene	2.5	ug/L	1.0	1		07/12/17 23:18	105-05-5	N3
Ethanol	ND	ug/L	250	1		07/12/17 23:18	64-17-5	
Ethylbenzene	28.0	ug/L	1.0	1		07/12/17 23:18	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/12/17 23:18	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		07/12/17 23:18	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/12/17 23:18	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/12/17 23:18	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		07/12/17 23:18	75-09-2	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-4-070517	Lab ID: 7023628005	Collected: 07/05/17 13:00	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
4-Methyl-2-pentanone (MIBK)	9.8	ug/L	5.0	1		07/12/17 23:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/12/17 23:18	1634-04-4	
Naphthalene	1.9	ug/L	1.0	1		07/12/17 23:18	91-20-3	CC
n-Propylbenzene	2.3	ug/L	1.0	1		07/12/17 23:18	103-65-1	
Styrene	ND	ug/L	1.0	1		07/12/17 23:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 23:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 23:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/12/17 23:18	127-18-4	
1,2,4,5-tetramethylbenzene	1.1	ug/L	1.0	1		07/12/17 23:18	95-93-2	N3
Toluene	9.8	ug/L	1.0	1		07/12/17 23:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:18	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/12/17 23:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/12/17 23:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		07/12/17 23:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/12/17 23:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		07/12/17 23:18	96-18-4	
1,2,4-Trimethylbenzene	1.1	ug/L	1.0	1		07/12/17 23:18	95-63-6	
1,3,5-Trimethylbenzene	2.0	ug/L	1.0	1		07/12/17 23:18	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		07/12/17 23:18	75-01-4	
Xylene (Total)	24.5	ug/L	2.0	1		07/12/17 23:18	1330-20-7	
m&p-Xylene	22.1	ug/L	2.0	1		07/12/17 23:18	179601-23-1	
o-Xylene	2.4	ug/L	1.0	1		07/12/17 23:18	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	91	%	68-153	1		07/12/17 23:18	17060-07-0	
4-Bromofluorobenzene (S)	97	%	79-124	1		07/12/17 23:18	460-00-4	
Toluene-d8 (S)	92	%	69-124	1		07/12/17 23:18	2037-26-5	

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-5-070517	Lab ID: 7023628006	Collected: 07/05/17 14:15	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
Acetone	15.3	ug/L	5.0	1		07/12/17 23:36	67-64-1	CC
Benzene	574	ug/L	25.0	25		07/13/17 16:29	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/12/17 23:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/12/17 23:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/12/17 23:36	75-27-4	
Bromoform	ND	ug/L	1.0	1		07/12/17 23:36	75-25-2	
Bromomethane	ND	ug/L	1.0	1		07/12/17 23:36	74-83-9	
2-Butanone (MEK)	5.1	ug/L	5.0	1		07/12/17 23:36	78-93-3	IL
n-Butylbenzene	43.3	ug/L	1.0	1		07/12/17 23:36	104-51-8	
sec-Butylbenzene	3.2	ug/L	1.0	1		07/12/17 23:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/12/17 23:36	98-06-6	
Carbon disulfide	2.1	ug/L	1.0	1		07/12/17 23:36	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		07/12/17 23:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/12/17 23:36	108-90-7	
Chlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 23:36	75-45-6	N3
Chloroethane	ND	ug/L	1.0	1		07/12/17 23:36	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/12/17 23:36	67-66-3	
Chloromethane	ND	ug/L	1.0	1		07/12/17 23:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 23:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/12/17 23:36	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		07/12/17 23:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/12/17 23:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		07/12/17 23:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:36	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		07/12/17 23:36	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/12/17 23:36	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/12/17 23:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/12/17 23:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/12/17 23:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		07/12/17 23:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		07/12/17 23:36	10061-02-6	L1
1,4-Diethylbenzene	347	ug/L	25.0	25		07/13/17 16:29	105-05-5	N3
Ethanol	ND	ug/L	250	1		07/12/17 23:36	64-17-5	
Ethylbenzene	534	ug/L	25.0	25		07/13/17 16:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/12/17 23:36	87-68-3	
2-Hexanone	5.9	ug/L	5.0	1		07/12/17 23:36	591-78-6	CC
Isopropylbenzene (Cumene)	13.6	ug/L	1.0	1		07/12/17 23:36	98-82-8	
p-Isopropyltoluene	5.7	ug/L	1.0	1		07/12/17 23:36	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		07/12/17 23:36	75-09-2	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Sample: BCP-MW-5-070517	Lab ID: 7023628006	Collected: 07/05/17 14:15	Received: 07/08/17 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C						
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/12/17 23:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/12/17 23:36	1634-04-4	
Naphthalene	<b>730</b>	ug/L	25.0	25		07/13/17 16:29	91-20-3	
n-Propylbenzene	<b>34.8</b>	ug/L	1.0	1		07/12/17 23:36	103-65-1	
Styrene	ND	ug/L	1.0	1		07/12/17 23:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 23:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/12/17 23:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/12/17 23:36	127-18-4	
1,2,4,5-tetramethylbenzene	<b>135</b>	ug/L	1.0	1		07/12/17 23:36	95-93-2	N3
Toluene	<b>36.2</b>	ug/L	1.0	1		07/12/17 23:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/12/17 23:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/12/17 23:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/12/17 23:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		07/12/17 23:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/12/17 23:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		07/12/17 23:36	96-18-4	
1,2,4-Trimethylbenzene	<b>2280</b>	ug/L	25.0	25		07/13/17 16:29	95-63-6	
1,3,5-Trimethylbenzene	<b>823</b>	ug/L	25.0	25		07/13/17 16:29	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		07/12/17 23:36	75-01-4	
Xylene (Total)	<b>4520</b>	ug/L	50.0	25		07/13/17 16:29	1330-20-7	
m&p-Xylene	<b>4350</b>	ug/L	50.0	25		07/13/17 16:29	179601-23-1	
o-Xylene	<b>171</b>	ug/L	1.0	1		07/12/17 23:36	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	106	%.	68-153	1		07/12/17 23:36	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		07/12/17 23:36	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		07/12/17 23:36	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

QC Batch: 31241 Analysis Method: EPA 8260C/5030C  
 QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV  
 Associated Lab Samples: 7023628001, 7023628002, 7023628003, 7023628004, 7023628005, 7023628006

METHOD BLANK: 144636 Matrix: Water  
 Associated Lab Samples: 7023628001, 7023628002, 7023628003, 7023628004, 7023628005, 7023628006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/12/17 17:32	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/12/17 17:32	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/12/17 17:32	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/12/17 17:32	
1,1-Dichloroethane	ug/L	ND	1.0	07/12/17 17:32	
1,1-Dichloroethene	ug/L	ND	1.0	07/12/17 17:32	
1,1-Dichloropropene	ug/L	ND	1.0	07/12/17 17:32	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/12/17 17:32	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/12/17 17:32	
1,2,4,5-tetramethylbenzene	ug/L	ND	1.0	07/12/17 17:32	N3
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/12/17 17:32	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/12/17 17:32	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/12/17 17:32	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/12/17 17:32	
1,2-Dichloroethane	ug/L	ND	1.0	07/12/17 17:32	
1,2-Dichloropropane	ug/L	ND	1.0	07/12/17 17:32	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/12/17 17:32	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/12/17 17:32	
1,3-Dichloropropane	ug/L	ND	1.0	07/12/17 17:32	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/12/17 17:32	
1,4-Diethylbenzene	ug/L	ND	1.0	07/12/17 17:32	N3
2,2-Dichloropropane	ug/L	ND	1.0	07/12/17 17:32	
2-Butanone (MEK)	ug/L	ND	5.0	07/12/17 17:32	IL
2-Chlorotoluene	ug/L	ND	1.0	07/12/17 17:32	
2-Hexanone	ug/L	ND	5.0	07/12/17 17:32	
4-Chlorotoluene	ug/L	ND	1.0	07/12/17 17:32	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	07/12/17 17:32	
Acetone	ug/L	ND	5.0	07/12/17 17:32	
Benzene	ug/L	ND	1.0	07/12/17 17:32	
Bromobenzene	ug/L	ND	1.0	07/12/17 17:32	
Bromochloromethane	ug/L	ND	1.0	07/12/17 17:32	
Bromodichloromethane	ug/L	ND	1.0	07/12/17 17:32	
Bromoform	ug/L	ND	1.0	07/12/17 17:32	
Bromomethane	ug/L	ND	1.0	07/12/17 17:32	
Carbon disulfide	ug/L	ND	1.0	07/12/17 17:32	
Carbon tetrachloride	ug/L	ND	1.0	07/12/17 17:32	
Chlorobenzene	ug/L	ND	1.0	07/12/17 17:32	
Chlorodifluoromethane	ug/L	ND	1.0	07/12/17 17:32	N3
Chloroethane	ug/L	ND	1.0	07/12/17 17:32	
Chloroform	ug/L	ND	1.0	07/12/17 17:32	
Chloromethane	ug/L	ND	1.0	07/12/17 17:32	

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

METHOD BLANK: 144636

Matrix: Water

Associated Lab Samples: 7023628001, 7023628002, 7023628003, 7023628004, 7023628005, 7023628006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/12/17 17:32	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/12/17 17:32	
Dibromochloromethane	ug/L	ND	1.0	07/12/17 17:32	
Dibromomethane	ug/L	ND	1.0	07/12/17 17:32	
Dichlorodifluoromethane	ug/L	ND	1.0	07/12/17 17:32	
Ethanol	ug/L	ND	250	07/12/17 17:32	
Ethylbenzene	ug/L	ND	1.0	07/12/17 17:32	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/12/17 17:32	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/12/17 17:32	
m&p-Xylene	ug/L	ND	2.0	07/12/17 17:32	
Methyl-tert-butyl ether	ug/L	ND	1.0	07/12/17 17:32	
Methylene Chloride	ug/L	ND	1.0	07/12/17 17:32	
n-Butylbenzene	ug/L	ND	1.0	07/12/17 17:32	
n-Propylbenzene	ug/L	ND	1.0	07/12/17 17:32	
Naphthalene	ug/L	ND	1.0	07/12/17 17:32	CC
o-Xylene	ug/L	ND	1.0	07/12/17 17:32	
p-Isopropyltoluene	ug/L	ND	1.0	07/12/17 17:32	
sec-Butylbenzene	ug/L	ND	1.0	07/12/17 17:32	
Styrene	ug/L	ND	1.0	07/12/17 17:32	
tert-Butylbenzene	ug/L	ND	1.0	07/12/17 17:32	
Tetrachloroethene	ug/L	ND	1.0	07/12/17 17:32	
Toluene	ug/L	ND	1.0	07/12/17 17:32	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/12/17 17:32	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/12/17 17:32	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	07/12/17 17:32	
Trichloroethene	ug/L	ND	1.0	07/12/17 17:32	
Trichlorofluoromethane	ug/L	ND	1.0	07/12/17 17:32	
Vinyl chloride	ug/L	ND	1.0	07/12/17 17:32	
Xylene (Total)	ug/L	ND	2.0	07/12/17 17:32	
1,2-Dichloroethane-d4 (S)	%	87	68-153	07/12/17 17:32	
4-Bromofluorobenzene (S)	%	98	79-124	07/12/17 17:32	
Toluene-d8 (S)	%	94	69-124	07/12/17 17:32	

LABORATORY CONTROL SAMPLE: 144637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.2	108	74-113	
1,1,1-Trichloroethane	ug/L	50	53.4	107	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	46.0	92	74-121	
1,1,2-Trichloroethane	ug/L	50	49.9	100	80-117	
1,1-Dichloroethane	ug/L	50	51.5	103	83-151	
1,1-Dichloroethene	ug/L	50	53.4	107	45-146	
1,1-Dichloropropene	ug/L	50	52.5	105	59-127	
1,2,3-Trichlorobenzene	ug/L	50	42.4	85	67-103	

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

LABORATORY CONTROL SAMPLE: 144637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/L	50	45.1	90	71-123	
1,2,4,5-tetramethylbenzene	ug/L	50	37.0	74	66-103	N3
1,2,4-Trichlorobenzene	ug/L	50	44.3	89	66-116	
1,2,4-Trimethylbenzene	ug/L	50	43.9	88	68-116	
1,2-Dibromoethane (EDB)	ug/L	50	53.8	108	83-115	
1,2-Dichlorobenzene	ug/L	50	45.6	91	74-113	
1,2-Dichloroethane	ug/L	50	48.8	98	74-129	
1,2-Dichloropropane	ug/L	50	50.5	101	75-117	
1,3,5-Trimethylbenzene	ug/L	50	44.0	88	67-116	
1,3-Dichlorobenzene	ug/L	50	45.0	90	71-112	
1,3-Dichloropropane	ug/L	50	49.7	99	74-112	
1,4-Dichlorobenzene	ug/L	50	44.9	90	71-113	
1,4-Diethylbenzene	ug/L	50	46.2	92	56-130	N3
2,2-Dichloropropane	ug/L	50	58.1	116	63-133	
2-Butanone (MEK)	ug/L	50	50.7	101	44-162	IL
2-Chlorotoluene	ug/L	50	43.0	86	74-101	
2-Hexanone	ug/L	50	59.0	118	32-183	CC
4-Chlorotoluene	ug/L	50	43.4	87	74-101	
4-Methyl-2-pentanone (MIBK)	ug/L	50	54.6	109	69-132	
Acetone	ug/L	50	53.6	107	23-188	CC
Benzene	ug/L	50	51.7	103	73-119	
Bromobenzene	ug/L	50	46.6	93	72-102	
Bromochloromethane	ug/L	50	55.2	110	81-116	
Bromodichloromethane	ug/L	50	51.6	103	78-117	
Bromoform	ug/L	50	53.7	107	65-122	
Bromomethane	ug/L	50	55.0	110	52-147	
Carbon disulfide	ug/L	50	46.6	93	41-144	
Carbon tetrachloride	ug/L	50	56.6	113	59-120	
Chlorobenzene	ug/L	50	50.6	101	75-113	
Chlorodifluoromethane	ug/L	50	48.4	97	43-140	N3
Chloroethane	ug/L	50	47.2	94	49-151	
Chloroform	ug/L	50	50.5	101	72-122	
Chloromethane	ug/L	50	46.2	92	46-144	
cis-1,2-Dichloroethene	ug/L	50	51.6	103	72-121	
cis-1,3-Dichloropropene	ug/L	50	55.9	112	78-116	
Dibromochloromethane	ug/L	50	54.4	109	70-120	
Dibromomethane	ug/L	50	50.0	100	75-125	
Dichlorodifluoromethane	ug/L	50	65.8	132	22-154	CC
Ethanol	ug/L	1250	1150	92	10-151	
Ethylbenzene	ug/L	50	51.3	103	70-113	
Hexachloro-1,3-butadiene	ug/L	50	54.3	109	59-121	CC
Isopropylbenzene (Cumene)	ug/L	50	45.0	90	67-115	
m&p-Xylene	ug/L	100	106	106	72-115	
Methyl-tert-butyl ether	ug/L	50	50.4	101	72-131	
Methylene Chloride	ug/L	50	49.1	98	61-142	
n-Butylbenzene	ug/L	50	45.4	91	73-107	
n-Propylbenzene	ug/L	50	44.1	88	68-116	

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

LABORATORY CONTROL SAMPLE: 144637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	35.3	71	70-118	CC
o-Xylene	ug/L	50	52.1	104	73-117	
p-Isopropyltoluene	ug/L	50	46.2	92	73-101	
sec-Butylbenzene	ug/L	50	45.6	91	72-103	
Styrene	ug/L	50	51.8	104	72-118	
tert-Butylbenzene	ug/L	50	45.7	91	68-100	
Tetrachloroethene	ug/L	50	46.7	93	60-128	
Toluene	ug/L	50	51.3	103	72-119	
trans-1,2-Dichloroethene	ug/L	50	53.5	107	56-142	
trans-1,3-Dichloropropene	ug/L	50	59.1	118	79-116	L1
trans-1,4-Dichloro-2-butene	ug/L	50	46.3	93	71-121	
Trichloroethene	ug/L	50	50.7	101	69-117	
Trichlorofluoromethane	ug/L	50	52.6	105	27-173	
Vinyl chloride	ug/L	50	51.1	102	43-143	
Xylene (Total)	ug/L	150	159	106	71-109	
1,2-Dichloroethane-d4 (S)	%			87	68-153	
4-Bromofluorobenzene (S)	%			99	79-124	
Toluene-d8 (S)	%			93	69-124	

MATRIX SPIKE SAMPLE: 146135

Parameter	Units	7023780002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	50.2	100	74-113	
1,1,1-Trichloroethane	ug/L	<1.0	50	50.9	102	65-118	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	47.0	94	74-121	
1,1,2-Trichloroethane	ug/L	<1.0	50	50.9	102	80-117	
1,1-Dichloroethane	ug/L	<1.0	50	51.9	104	83-151	
1,1-Dichloroethene	ug/L	<1.0	50	56.1	112	45-146	
1,1-Dichloropropene	ug/L	<1.0	50	51.1	102	59-127	
1,2,3-Trichlorobenzene	ug/L	<1.0	50	42.4	85	67-103	
1,2,3-Trichloropropane	ug/L	<1.0	50	46.2	92	71-123	
1,2,4,5-tetramethylbenzene	ug/L	<1.0	50	38.6	77	66-103	N3
1,2,4-Trichlorobenzene	ug/L	<1.0	50	44.2	88	66-116	
1,2,4-Trimethylbenzene	ug/L	<1.0	50	51.5	103	68-116	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	54.2	108	83-115	
1,2-Dichlorobenzene	ug/L	<1.0	50	45.5	91	74-113	
1,2-Dichloroethane	ug/L	<1.0	50	50.2	100	74-129	
1,2-Dichloropropane	ug/L	<1.0	50	49.0	98	75-117	
1,3,5-Trimethylbenzene	ug/L	<1.0	50	47.4	95	67-116	
1,3-Dichlorobenzene	ug/L	<1.0	50	43.8	88	71-112	
1,3-Dichloropropane	ug/L	<1.0	50	49.5	99	74-112	
1,4-Dichlorobenzene	ug/L	<1.0	50	43.7	87	71-113	
1,4-Diethylbenzene	ug/L	<1.0	50	51.0	102	56-130	N3
2,2-Dichloropropane	ug/L	<1.0	50	51.0	102	63-133	
2-Butanone (MEK)	ug/L	<5.0	50	48.9	98	44-162	IL

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

MATRIX SPIKE SAMPLE: 146135

Parameter	Units	7023780002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Chlorotoluene	ug/L	<1.0	50	42.4	85	74-101	
2-Hexanone	ug/L	<5.0	50	60.3	121	32-183	CC
4-Chlorotoluene	ug/L	<1.0	50	41.5	83	74-101	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	58.6	117	69-132	
Acetone	ug/L	41.8	50	64.9	46	23-188	CC
Benzene	ug/L	<1.0	50	51.4	103	73-119	
Bromobenzene	ug/L	<1.0	50	45.1	90	72-102	
Bromochloromethane	ug/L	<1.0	50	56.6	113	81-116	
Bromodichloromethane	ug/L	<1.0	50	49.1	98	78-117	
Bromoform	ug/L	<1.0	50	49.4	99	65-122	
Bromomethane	ug/L	<1.0	50	54.0	108	52-147	
Carbon disulfide	ug/L	<1.0	50	47.3	95	41-144	
Carbon tetrachloride	ug/L	<1.0	50	50.5	101	59-120	
Chlorobenzene	ug/L	<1.0	50	49.1	98	75-113	
Chlorodifluoromethane	ug/L	<1.0	50	48.1	96	43-140	N3
Chloroethane	ug/L	<1.0	50	46.5	93	49-151	
Chloroform	ug/L	<1.0	50	50.9	102	72-122	
Chloromethane	ug/L	<1.0	50	46.1	92	46-144	
cis-1,2-Dichloroethene	ug/L	<1.0	50	51.2	102	72-121	
cis-1,3-Dichloropropene	ug/L	<1.0	50	53.3	107	78-116	
Dibromochloromethane	ug/L	<1.0	50	49.9	100	70-120	
Dibromomethane	ug/L	<1.0	50	51.6	103	75-125	
Dichlorodifluoromethane	ug/L	<1.0	50	61.7	123	22-154	CC
Ethanol	ug/L	<250	1250	1190	95	10-151	
Ethylbenzene	ug/L	<1.0	50	50.5	101	70-113	
Hexachloro-1,3-butadiene	ug/L	<1.0	50	45.4	91	59-121	CC
Isopropylbenzene (Cumene)	ug/L	<1.0	50	43.2	86	67-115	
m&p-Xylene	ug/L	<2.0	100	119	119	72-115	M1
Methyl-tert-butyl ether	ug/L	<1.0	50	52.7	105	72-131	
Methylene Chloride	ug/L	<1.0	50	49.5	99	61-142	
n-Butylbenzene	ug/L	<1.0	50	43.1	86	73-107	
n-Propylbenzene	ug/L	<1.0	50	42.3	85	68-116	
Naphthalene	ug/L	<1.0	50	63.1	126	70-118	CC,M1
o-Xylene	ug/L	<1.0	50	61.6	123	73-117	M1
p-Isopropyltoluene	ug/L	<1.0	50	42.7	85	73-101	
sec-Butylbenzene	ug/L	<1.0	50	43.3	87	72-103	
Styrene	ug/L	<1.0	50	50.2	100	72-118	
tert-Butylbenzene	ug/L	<1.0	50	43.8	88	68-100	
Tetrachloroethene	ug/L	<1.0	50	44.7	89	60-128	
Toluene	ug/L	<1.0	50	52.5	105	72-119	
trans-1,2-Dichloroethene	ug/L	<1.0	50	53.5	107	56-142	
trans-1,3-Dichloropropene	ug/L	<1.0	50	55.7	111	79-116	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	50	43.4	87	71-121	
Trichloroethene	ug/L	<1.0	50	49.9	100	69-117	
Trichlorofluoromethane	ug/L	<1.0	50	52.6	105	27-173	
Vinyl chloride	ug/L	<1.0	50	52.0	104	43-143	
Xylene (Total)	ug/L	<2.0	150	180	120	71-109	MS

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

MATRIX SPIKE SAMPLE: 146135		7023780002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%.				87	68-153	
4-Bromofluorobenzene (S)	%.				99	79-124	
Toluene-d8 (S)	%.				93	69-124	

SAMPLE DUPLICATE: 146134

Parameter	Units	7023780001	Dup	RPD	Qualifiers
		Result	Result		
1,1,1,2-Tetrachloroethane	ug/L	<1.0	ND		
1,1,1-Trichloroethane	ug/L	<1.0	ND		
1,1,2,2-Tetrachloroethane	ug/L	<1.0	ND		
1,1,2-Trichloroethane	ug/L	<1.0	ND		
1,1-Dichloroethane	ug/L	<1.0	ND		
1,1-Dichloroethene	ug/L	<1.0	ND		
1,1-Dichloropropene	ug/L	<1.0	ND		
1,2,3-Trichlorobenzene	ug/L	<1.0	ND		
1,2,3-Trichloropropane	ug/L	<1.0	ND		
1,2,4,5-tetramethylbenzene	ug/L	<1.0	ND		N3
1,2,4-Trichlorobenzene	ug/L	<1.0	ND		
1,2,4-Trimethylbenzene	ug/L	<1.0	ND		
1,2-Dibromoethane (EDB)	ug/L	<1.0	ND		
1,2-Dichlorobenzene	ug/L	<1.0	ND		
1,2-Dichloroethane	ug/L	<1.0	ND		
1,2-Dichloropropane	ug/L	<1.0	ND		
1,3,5-Trimethylbenzene	ug/L	<1.0	ND		
1,3-Dichlorobenzene	ug/L	<1.0	ND		
1,3-Dichloropropane	ug/L	<1.0	ND		
1,4-Dichlorobenzene	ug/L	<1.0	ND		
1,4-Diethylbenzene	ug/L	<1.0	ND		N3
2,2-Dichloropropane	ug/L	<1.0	ND		
2-Butanone (MEK)	ug/L	<5.0	ND		IL
2-Chlorotoluene	ug/L	<1.0	ND		
2-Hexanone	ug/L	<5.0	ND		
4-Chlorotoluene	ug/L	<1.0	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	ND		
Acetone	ug/L	<5.0	ND		
Benzene	ug/L	<1.0	ND		
Bromobenzene	ug/L	<1.0	ND		
Bromochloromethane	ug/L	<1.0	ND		
Bromodichloromethane	ug/L	<1.0	ND		
Bromoform	ug/L	<1.0	ND		
Bromomethane	ug/L	<1.0	ND		
Carbon disulfide	ug/L	<1.0	ND		
Carbon tetrachloride	ug/L	<1.0	ND		
Chlorobenzene	ug/L	<1.0	ND		
Chlorodifluoromethane	ug/L	<1.0	ND		N3

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### QUALITY CONTROL DATA

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

SAMPLE DUPLICATE: 146134

Parameter	Units	7023780001 Result	Dup Result	RPD	Qualifiers
Chloroethane	ug/L	<1.0	ND		
Chloroform	ug/L	<1.0	ND		
Chloromethane	ug/L	<1.0	ND		
cis-1,2-Dichloroethene	ug/L	<1.0	ND		
cis-1,3-Dichloropropene	ug/L	<1.0	ND		
Dibromochloromethane	ug/L	<1.0	ND		
Dibromomethane	ug/L	<1.0	ND		
Dichlorodifluoromethane	ug/L	<1.0	ND		
Ethanol	ug/L	<250	ND		
Ethylbenzene	ug/L	<1.0	ND		
Hexachloro-1,3-butadiene	ug/L	<1.0	ND		
Isopropylbenzene (Cumene)	ug/L	<1.0	ND		
m&p-Xylene	ug/L	<2.0	ND		
Methyl-tert-butyl ether	ug/L	<1.0	ND		
Methylene Chloride	ug/L	<1.0	ND		
n-Butylbenzene	ug/L	<1.0	ND		
n-Propylbenzene	ug/L	<1.0	ND		
Naphthalene	ug/L	<1.0	ND		CC
o-Xylene	ug/L	<1.0	ND		
p-Isopropyltoluene	ug/L	<1.0	ND		
sec-Butylbenzene	ug/L	<1.0	ND		
Styrene	ug/L	<1.0	ND		
tert-Butylbenzene	ug/L	<1.0	ND		
Tetrachloroethene	ug/L	<1.0	ND		
Toluene	ug/L	<1.0	ND		
trans-1,2-Dichloroethene	ug/L	<1.0	ND		
trans-1,3-Dichloropropene	ug/L	<1.0	ND		
trans-1,4-Dichloro-2-butene	ug/L	<1.0	ND		
Trichloroethene	ug/L	<1.0	ND		
Trichlorofluoromethane	ug/L	<1.0	ND		
Vinyl chloride	ug/L	<1.0	ND		
Xylene (Total)	ug/L	<2.0	ND		
1,2-Dichloroethane-d4 (S)	%	88	89	1	
4-Bromofluorobenzene (S)	%	96	96	0	
Toluene-d8 (S)	%	92	92	0	

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## QUALIFIERS

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- |    |   |
|----|---|
| CC | The continuing calibration for this compound is outside of method control limits. The result is estimated.  |
| IL | This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value. |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.             |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.   |
| MS | Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.                       |
| N3 | Accreditation is not offered by the relevant laboratory accrediting body for this parameter.  |

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CONVENTUS #N46001001

Pace Project No.: 7023628

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7023628001	BCP-MW-1-070517	EPA 8260C/5030C	31241		
7023628002	BCP-MW-7-070517	EPA 8260C/5030C	31241		
7023628003	BCP-MW-6-070517	EPA 8260C/5030C	31241		
7023628004	BCP-MW-3-070517	EPA 8260C/5030C	31241		
7023628005	BCP-MW-4-070517	EPA 8260C/5030C	31241		
7023628006	BCP-MW-5-070517	EPA 8260C/5030C	31241		

### REPORT OF LABORATORY ANALYSIS

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**CHAIN-OF-CUSTODY / Analytical Request Document**

WO#: 7023628

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:
Company: <i>CES Engineers</i>	Report To: <i>Cody Martin</i>	Attention: <i>Cody Martin</i>
Address: <i>141 Elm Street</i>	Copy To:	Company Name: <i>CES Engineers</i>
Email To: <i>Cmarlind@cesos.com</i>	Purchase Order No.:	Address: <i>141 Elm Street</i>
Phone: <i>716-955-8021</i>	Project Name: <i>Conventus</i>	Pace Quote Reference:
Requested Due Date/TAT: <i>Standard</i>	Project Number: <i>NH0001001</i>	Pace Project Manager:
		Pace Profile #:
		Site Location STATE: <i>NY</i>
		REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER

ITEM #	Section D Required Client Information	Section E Matrix Codes	Section F MATRIX CODE (see valid codes to left)	Section G SAMPLE TYPE (G=GRAB C=COMP)	Section H COLLECTED		Section I SAMPLE TEMP AT COLLECTION	Section J # OF CONTAINERS	Section K Preservatives	Section L Y/N	Section M Requested Analysis Filtered (Y/N)	Section N Residual Chlorine (Y/N)	Section O Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB							
1	BCP-MW-1-070517	DW	WT	WTG		7/5/17 9:15		2	Unpreserved				
2	BCP-MW-1-070517	Water	WT			9:58		1	HCl				
3	BCP-MW-6-070517	Waste Water Product	WW			11:10		1	HNO <sub>3</sub>				
4	BCP-MW-3-070517	Soil/Solid	P			12:00		1	H <sub>2</sub> SO <sub>4</sub>				
5	BCP-MW-4-070517	Oil	SL			13:00		1	NaOH				
6	BCP-MW-5-070517	Wipe	OL			14:15		1	Methanol				
7	MSM	Air	WP						Other				
8		Tissue	AR										
9		Other	OT										
10													
11													
12													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		SAMPLE CONDITIONS	
	DATE	TIME	DATE	TIME	Temp in °C	Received on
<i>Cody Martin CES</i>	7/7/17	10:59	<i>Buck RACE</i>	7/7/17	10:39	
<i>Cody Martin</i>	7/7/17	7:00	<i>Quinn Ruff</i>	7/8/17	10:20	2.3
						4
						4
						4

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: *Cody Martin*

SIGNATURE of SAMPLER: *Cody Martin*

DATE Signed (MM/DD/YY): *7/6/17*

ORIGINAL

\*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



Sample Condition Upon Receipt

WO#: 7023628

Client Name: C85

Project: PM: JM1 Due Date: 07/19/17  
CLIENT: CSC

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

Tracking #: 7795 8129 0644

Custody Seal on Cooler/Box Present:  Yes  No Seals Intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Ziploc  None  Other Type of Ice:  Wet  Blue  None

Thermometer Used: TH092 Correction Factor: 0  Samples on ice, cooling process has begun

Cooler Temperature (°C): 2.3 Cooler Temperature Corrected (°C): 2.3 Date/Time 5035A kits placed in freezer \_\_\_\_\_

Temp should be above freezing to 6.0°C

USDA Regulated Soil  N/A, water sample)

Date and Initials of person examining contents: JK 7/18/17

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)?  YES  NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

		COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix: SL WT OIL		
All containers needing preservation have been checked	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot #		Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH >9 Sulfide, NAOH >12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis		Initial when completed: Lot # of added preservative: Date/Time preservative added
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* PM (Project Manager) review is documented electronically in LIMS.

**APPENDIX B**  
**INSTITUTIONAL AND 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.	C915260		
<b>Site Name Former Mobil Service Station 99-MST</b>			
Site Address: 979 Main Street		Zip Code: 14203	
City/Town: Buffalo			
County: Erie			
Site Acreage: 1.7			
Reporting Period: March 24, 2017 to March 24, 2018			
		YES	NO
1. Is the information above correct?		<input checked="" type="checkbox"/>	<input 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"/>
<b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b>			
5. Is the site currently undergoing development?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<b>Box 2</b>	
		YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, 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"/>
<b>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.</b>			
<b>A Corrective Measures Work Plan must be submitted along with this form to address these issues.</b>			
Signature of Owner, Remedial Party or Designated Representative		Date	

**Box 2A**

YES NO

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

**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. C915260**

**Box 3**

**Description of Institutional Controls**

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
100.79-1-1.1	Kaleida Properties, Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan

1. Prohibition of use of groundwater.
2. Landuse Restriction for Restricted Residential, Commercial or Industrial use.
3. Soil Management or Excavation Work Plan for any future intrusive work.
4. Groundwater Monitoring Plan.

100.79-1-2.11	Kaleida Health	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
---------------	----------------	--

1. Prohibition of use of groundwater.
2. Landuse Restriction for Restricted Residential, Commercial or Industrial use.
3. Soil Management or Excavation Work Plan for any future intrusive work.
4. Groundwater Monitoring Plan.

**Box 4**

**Description of Engineering Controls**

<u>Parcel</u>	<u>Engineering Control</u>
100.79-1-1.1	Groundwater Treatment System Groundwater will be treated in-situ by injections of oxygen release compounds (ORC) to degrade petroleum hydrocarbons to harmless compounds.
100.79-1-2.11	Groundwater Treatment System Groundwater will be treated in-situ by injections of oxygen release compounds (ORC) to degrade petroleum hydrocarbons to harmless compounds

**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

**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 Timothy Hughes at C&S Engineers, Inc  
141 Elm St. Buffalo, NY 14203  
print name print business address

am certifying as Kaleida Properties, Inc.; Kaleida Health; (Owner or Remedial Party)  
and Conventus Partners, Inc.

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

[Signature]  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

2/10/18  
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer 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 Timothy Hughes at C&S Engineers, Inc.  
141 Elm St. Buffalo, NY 14203  
print name print business address

am certifying as a Professional Engineer for the Kaleida Health, Kaleida Properties, Inc.  
Conventus Partners, Inc.  
(Owner of Remedial Party)

Timothy Hughes  
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification



7/10/18  
Stamp (Required for PE) Date