

**Pinellas County, Florida, Site
Environmental Restoration Project**

**Semiannual Progress Report
for the 4.5 Acre Site**

June Through November 2013

December 2013



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Appendix A Laboratory Reports, September 2013 Semiannual Monitoring

Abbreviations

cDCE	<i>cis</i> -1,2-dichloroethene
COPC	contaminant of potential concern
CTL	cleanup target level
DOE	U.S. Department of Energy
F.A.C.	<i>Florida Administrative Code</i>
FDEP	Florida Department of Environmental Protection
IRA	Interim Remedial Action
LDA	large-diameter auger
LM	Office of Legacy Management
µg/L	micrograms per liter
mg/L	milligrams per liter
RPD	relative percent difference
STAR Center	Young - Rainey Science, Technology, and Research Center
TCE	trichloroethene
TCOPCs	total contaminants of potential concern
VC	vinyl chloride
VOC	volatile organic compound

1.0 Introduction

The *Pinellas County, Florida, Site Environmental Restoration Project Semiannual Progress Report for the 4.5 Acre Site* describes environmental restoration activities for the Pinellas 4.5 Acre Site located in Pinellas County, Largo, Florida (Figure 1). The former U.S. Department of Energy (DOE) Pinellas Plant facility consisted of the 4.5 Acre Site and what is now the Young - Rainey Science, Technology, and Research Center (STAR Center). Both the 4.5 Acre Site and the STAR Center are part of the overall Pinellas County, Florida, Site (Figure 2).

The Pinellas Plant facility was constructed in the mid-1950s as part of a nationwide nuclear weapons research, development, and production complex. Production of weapons-related components ceased in September 1994. However, as a result of these operations, contamination exists in the surficial groundwater beneath the site.

Administration of DOE activities at the 4.5 Acre Site is the responsibility of the DOE Office of Legacy Management (LM) in Grand Junction, Colorado. S.M. Stoller Corporation, a prime contractor to LM, provides technical support to DOE for the remediation and closure of all active solid-waste management units on the STAR Center and for the 4.5 Acre Site.

The 4.5 Acre Site is located to the northwest of the STAR Center, in the northeast quarter of Section 13, Township 30 South, Range 15 East (Figure 2). DOE owned this parcel from 1957 to 1972, at which time it was sold to a private landowner. During the period of DOE ownership, the property was used for disposal of drums of waste resins and solvents. As a result of this practice, the surficial aquifer was impacted by volatile organic compounds (VOCs), primarily vinyl chloride (VC), toluene, trichloroethene (TCE), and 1,2-dichloroethene. DOE completed a source removal in 1985.

An Interim Remedial Action (IRA), consisting of groundwater extraction and treatment via air stripping, and a routine groundwater monitoring program were initiated in May 1990. In July 1997, a modification of the IRA, involving the installation of dual-phase extraction wells, provided a more aggressive system to remove groundwater contamination. In November 1999, the dual-phase extraction/air-stripping system was replaced with an in situ biosparge treatment system.

The *4.5 Acre Site Biosparge System Integration Plan* (DOE 2000) was approved by the Florida Department of Environmental Protection (FDEP) on January 17, 2001. This plan stated that performance monitoring of the biosparge system would be undertaken on a quarterly basis. Therefore, in April 2001, quarterly performance monitoring through the use of direct-push technology was undertaken. This continued until the biosparge system was shut off in May 2003.

The *Remedial Action Plan for the Pinellas 4.5 Acre Site* (DOE 2001) outlined a groundwater recovery system as a contingency option in the event that biosparging resulted in extending the contaminant plume. The *Interim Remedial Action Plan for Ground Water Recovery at the 4.5 Acre Site* (DOE 2003b) was submitted to FDEP on August 29, 2003, and approved by FDEP on September 19, 2003. Construction of the IRA treatment system began on March 8, 2004, and the system began operations on April 26, 2004. The treatment system consisted of an extraction well field (three recovery wells), pumps and associated piping, a water transmission pipeline, a utility connection, a low-profile tray air-stripper unit, and effluent piping.

In April 2005, the *4.5 Acre Site Remedial Action Plan Addendum* (DOE 2005) was submitted to FDEP. That document presented a proposed final action for the 4.5 Acre Site that involved the closure of the site using the provisions of the State of Florida Global Risk-Based Corrective Action regulations. Part of DOE's proposed final action for the 4.5 Acre Site was to shut down the groundwater recovery system and begin a 2-year monitoring period. Approval from FDEP to shut down the system was received on December 20, 2005, thus commencing DOE's 2-year monitoring period.

Although DOE has conducted numerous remediation activities at the 4.5 Acre Site since 1985, FDEP in 2005 suggested that, based on elevated levels of VOCs in groundwater, a source of VOCs might remain in the subsurface, and that removal of contaminated soil might be necessary (Armstrong 2005). To investigate this concern, 1,172 soil samples were collected from 138 soil borings installed at two areas of the site during the summer of 2007. Analytical results demonstrated that the following contaminants were present in site sediments at concentrations that likely represent a source of contamination to groundwater: TCE, *cis*-1,2-DCE (cDCE), *trans*-1,2-DCE, and toluene. Results from this characterization effort are available in the *4.5 Acre Site Source Characterization Data Report* (DOE 2007).

In April 2008, DOE completed a feasibility study that evaluated the available contaminant source removal technologies (DOE 2008a). The preferred option for source removal at the 4.5 Acre Site was determined to be soil excavation using a large-diameter auger (LDA) and offsite disposal of soil. FDEP agreed with this option in a letter dated May 14, 2008 (Armstrong 2008).

An *Interim Remedial Action Plan for Source Removal at the 4.5 Acre Site* (DOE 2008b) was prepared in late July 2008 and approved by FDEP on August 19, 2008. The objective of this IRA was to remove the source of contamination at the site. On March 31, 2009, LDA operations commenced at the 4.5 Acre Site and were completed on May 27, 2009. Two hundred twenty-one large-diameter and 325 small-diameter borings were completed. Approximately 7,035 cubic yards of soil were excavated. Of this total, 4,464 cubic yards were removed as clean overburden, and 2,571 cubic yards of contaminated soil were removed, characterized for waste disposal, and disposed of at a Resource Conservation and Recovery Act Subtitle D landfill. Additional information regarding the 4.5 Acre Site LDA work is available in the *Data Report for Overburden Soil at the Northeast Site and the 4.5 Acre Site* (DOE 2009b) and the *Interim Remedial Action Final Report for Source Removal at the 4.5 Acre Site* (DOE 2009c).

Routine monitoring at the site in March 2009 identified VC in a sample from offsite monitoring well PIN20-M035. DOE reported this discovery to FDEP and to the property owner in accordance with FDEP notification requirements.

As a follow-up to the LDA work, emulsified soybean oil and the microorganism *Dehalococcoides ethenogenes* were injected into the subsurface at 95 points at the site in February 2010 to enhance contaminant biodegradation. The document *Injection of Emulsified Soybean Oil at the Northeast Site and 4.5 Acre Site* (DOE 2010) was prepared to describe the work performed for this task. This project has resulted in a significant decrease in contaminant mass and concentration around the former contaminant source areas and in the downgradient contaminant plume.

A second emulsified soybean oil injection event was conducted in July 2013. Approximately 2,300 gallons of concentrated emulsified soybean oil and the microorganism *Dehalococcoides mccartyi* were injected at 46 locations along the southwest property boundary and adjacent to monitoring well pair PIN20-0502/0503. This project is described in detail in the *4.5 Acre Interim Remedial Action Report* (DOE 2013).

With (1) the completion of the LDA project to remove contaminant source material and (2) the two emulsified soybean oil injection events, DOE is proceeding to close the site under FDEP's Risk-Based Corrective Action regulations (Chapter 62-780.680, *Florida Administrative Code* [F.A.C.]). The *Closure Monitoring Plan for the Northeast Site and 4.5 Acre Site* (DOE 2009a) describes the closure monitoring that is necessary under the Risk-Based Corrective Action regulations, according to the requirements in Chapter 62-780.750, F.A.C., "Post Active Remediation Monitoring." That DOE document was approved by FDEP on December 21, 2009. In the approval letter, FDEP suggested semiannual instead of quarterly closure monitoring and this was implemented starting with the March 2010 sampling event.

This document is the semiannual progress report for the 4.5 Acre Site for June through November 2013, as requested by FDEP. This report provides the results of monitoring activities and a summary of ongoing and projected work.

1.1 Site Activities

The following work took place during the June through November 2013 period.

- Approximately 2,300 gallons of concentrated emulsified soybean oil and the microorganism *Dehalococcoides mccartyi* were injected at 46 locations from July 15 to July 25. This project is described in detail in the *4.5 Acre Interim Remedial Action Report* (DOE 2013).
- Two monitoring wells were sampled in early July for analysis of sodium, sulfate, and total recoverable petroleum hydrocarbons to determine a baseline concentration for these parameters prior to injection of emulsified soybean oil. In addition, one monitoring well was sampled for these parameters during the September sampling event.
- Conducted semiannual sampling, which consisted of collecting groundwater samples for VOCs analysis from 13 closure monitoring wells and 6 additional monitoring wells during September 11–19, 2013, and measuring water levels in all wells and nearby ponds on September 10.
- Reported the results of the semiannual closure monitoring (this document).

2.0 Monitoring Data

2.1 Groundwater Elevations and Flow

During this reporting period, depth-to-water measurements were taken in all accessible monitoring wells and former recovery wells at the 4.5 Acre Site on September 10, 2013. The depth to water in each well was measured with an electronic water level indicator. The surface water elevation in the pond north of the 4.5 Acre Site was measured from a nail-and-disk marker set in a concrete culvert. The groundwater elevation data are listed in Table 1. Surface water

elevations for the West Pond (to the east), Pond 5 (to the southeast), and the pond north of the 4.5 Acre Site are listed in Table 2. The water elevation data were used to construct contours of water levels in the shallow and deep portions of the surficial aquifer (Figures 3 and 4).

In September 2013, groundwater in the shallow surficial aquifer (Figure 3) generally flowed to the northwest. There was also a component of flow toward the southeast in the southern part of the site. The flow patterns in the deep surficial aquifer (Figure 4) indicate similar flow directions. The average hydraulic gradient in most of the site was approximately 0.002 foot/foot. This gradient is similar to those observed during the previous few years. Calculations using Darcy's law, along with approximations of 1 foot/day for hydraulic conductivity and 0.3 for effective porosity, indicate that groundwater at the site is estimated to move about 2.4 feet/year. Groundwater velocities at the site have historically ranged from 2 to 10 feet/year.

2.2 Groundwater Sampling

Groundwater samples from the 13 closure monitoring wells at the 4.5 Acre Site were analyzed for VOCs in September 2013. Six additional monitoring wells located along the western property boundary were also sampled for VOCs to provide supplemental data to monitor the performance of the enhanced bioremediation project. These six wells are not part of the closure monitoring program.

All samples were collected in accordance with the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351), using FDEP procedures. All samples were submitted to TestAmerica Laboratories Inc. in Denver, Colorado, for analysis. TestAmerica Denver is accredited by the Florida Department of Health in accordance with the National Environmental Laboratory Accreditation Conference, certification number E87667. VOCs were analyzed using U.S. Environmental Protection Agency SW-846 method 8260B. All monitoring wells were micropurged using a dedicated bladder pump or a peristaltic pump, and sampling was performed when the field measurements stabilized. Table 3 lists the September 2013 field measurements of temperature, specific conductance, turbidity, pH, oxidation-reduction potential, and dissolved oxygen recorded at the time the samples were collected. Measurements were made using a calibrated multiparameter meter with a flow cell, and turbidity was measured using a nephelometer.

2.3 Groundwater Analytical Results

Table 4 presents individual contaminants of potential concern (COPCs) and total COPCs (TCOPCs) concentrations in samples collected from wells at the 4.5 Acre Site in September 2013. The results from the previous two sampling events are included in Table 4 for comparison. Figure 5 shows the TCOPCs concentrations for September 2013.

The maximum TCOPCs value detected in September 2013 was 82 micrograms per liter ($\mu\text{g/L}$) at well PIN20-M059. The compound detected at the highest concentration was VC at 72 $\mu\text{g/L}$ at well PIN20-M059.

The VC concentration in offsite monitoring well PIN20-M035 has been above the 1 $\mu\text{g/L}$ cleanup target level (CTL) since March 2009. However, in September 2013, the VC concentration was 0.79 $\mu\text{g/L}$ (0.86 $\mu\text{g/L}$ in a duplicate sample).

Monitoring wells PIN20-M053 and -M068 were sampled in early July for analysis of sodium, sulfate, and total recoverable petroleum hydrocarbons to determine a baseline concentration for these parameters prior to injection of emulsified soybean oil. In addition, offsite monitoring well PIN20-M035 was sampled for these parameters during the September sampling event. The results are listed in Table 5.

Laboratory reports for samples collected in September 2013 are provided in Appendix A.

2.4 Quality Assurance/Quality Control

The results from the analytical laboratory, TestAmerica, were checked for quality assurance/quality control through duplicate samples and trip blanks. Detected analytes for the duplicate sample collected from the 4.5 Acre Site in September 2013 are listed in Table 6. The duplicate sample results were compared, and the relative percent differences (RPDs) between the results were calculated. All duplicate results met the U.S. Environmental Protection Agency recommended laboratory duplicate criterion of less than 20 percent RPD for results that are greater than 5 times the practical quantitation limit.

As specified in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*, duplicate samples should be collected at a frequency of one duplicate for every 20 or fewer samples. During the September 2013 event, 19 samples were collected and 1 duplicate sample was collected, so this criterion was met.

A data validation software module for identifying and tracking anomalous groundwater data within the Site Environmental Evaluation for Projects database was used to generate a report of analytical results that fall outside of historical minimum or maximum values. There were no anomalies associated with these results, and the data are acceptable as qualified.

3.0 Data Interpretation

This data interpretation section is included to aid in evaluating plume stability and evaluate the performance of the enhanced bioremediation project at the 4.5 Acre Site. Time-concentration plots are described in Section 3.1, plume maps are presented in Section 3.2, and site geochemistry is discussed in Section 3.3.

Based on a comprehensive review of background data for the site (DOE 2003a), it was determined that aluminum and iron levels in the shallow groundwater in the site vicinity are naturally elevated and far exceed State of Florida Secondary Drinking Water Standards (Chapter 62-550, F.A.C.). Specifically, the average background concentration of 1.1 milligrams per liter (mg/L) for aluminum exceeds the 0.2 mg/L secondary standard, and the average background concentration for iron (9.3 mg/L) exceeds the 0.3 mg/L secondary standard. The ambient shallow groundwater in the area is therefore designated as “poor quality” as defined in 62-780.200 (35), F.A.C. Accordingly, the applicable groundwater CTLs are those for groundwater of “low yield/poor quality” provided in Table 1 of Chapter 62-777, F.A.C. In essence, these CTL values for poor quality groundwater are a factor of 10 higher than the CTL values for drinking water.

3.1 Contaminant Concentration Trends

Figures 6 and 7 show the cDCE and VC concentration trends in wells PIN20-0502 and PIN20-M001, respectively. Well M001 is located within the influence of the emulsified soybean oil injection that was conducted in 2010, and well 0502 is located within the area of influence of the July 2013 soybean oil injection. The cDCE and VC concentrations in well 0502 decreased by at least a factor of 10 from March to September 2013, possibly due to the soybean oil injection. The concentrations of cDCE and VC in well M001 have decreased significantly since the soybean oil injection was completed in February 2010.

3.2 Plume Maps

Plume maps were generated for TCOPCs (Figure 5) and VC (Figure 8) based on September 2013 data. The VC plume on the 4.5 Acre Site is drawn to the poor water quality CTL, and the offsite VC plume is drawn to the regular CTL. At the request of FDEP, the VC plume map now shows the onsite plume as defined by both the poor water quality CTL and the regular CTL.

As discussed in Section 2.3, the VC concentration in well PIN20-M035 was below the 1 µg/L CTL in September 2013. With this decrease to below the CTL, there is now no offsite plume at the 4.5 Acre Site.

Plume maps for TCE and cDCE have been shown in previous reports, but these COPCs were not detected above their respective poor water quality CTLs for this reporting period, so plume maps are not necessary in this report. This lack of TCE and cDCE exceedances is significant and reflects the contaminant source removal efforts in 2009 and the enhancement of naturally occurring biodegradation (i.e., the injection of emulsified soybean oil in 2010 and 2013).

3.3 Geochemical Parameters

Geochemical parameters measured in the field at the 4.5 Acre Site during September 2013 are listed in Table 3. Conditions are moderately reducing as evidenced by the low values of dissolved oxygen and oxidation-reduction potential. Oxidation-reduction potential values of less than -300 millivolts in a few wells are evidence of the effect of the emulsified soybean oil injection.

4.0 Upcoming Tasks

The major task scheduled during the December 2013 to May 2014 period is as follows.

- The semiannual sampling event will be conducted in March 2014. This will include sampling of 13 closure monitoring wells and measuring water levels in all wells and nearby ponds. At the request of FDEP, three monitoring wells will also be sampled for analysis of total recoverable petroleum hydrocarbons, sodium, and sulfate.

5.0 References

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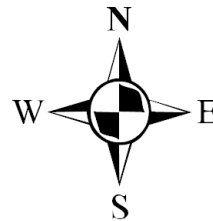
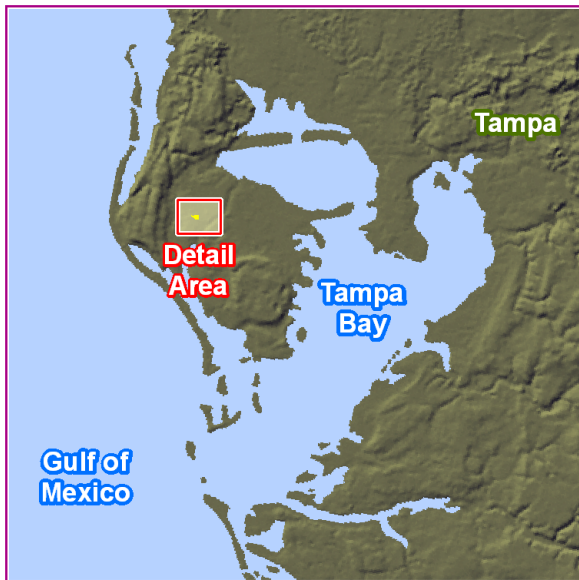
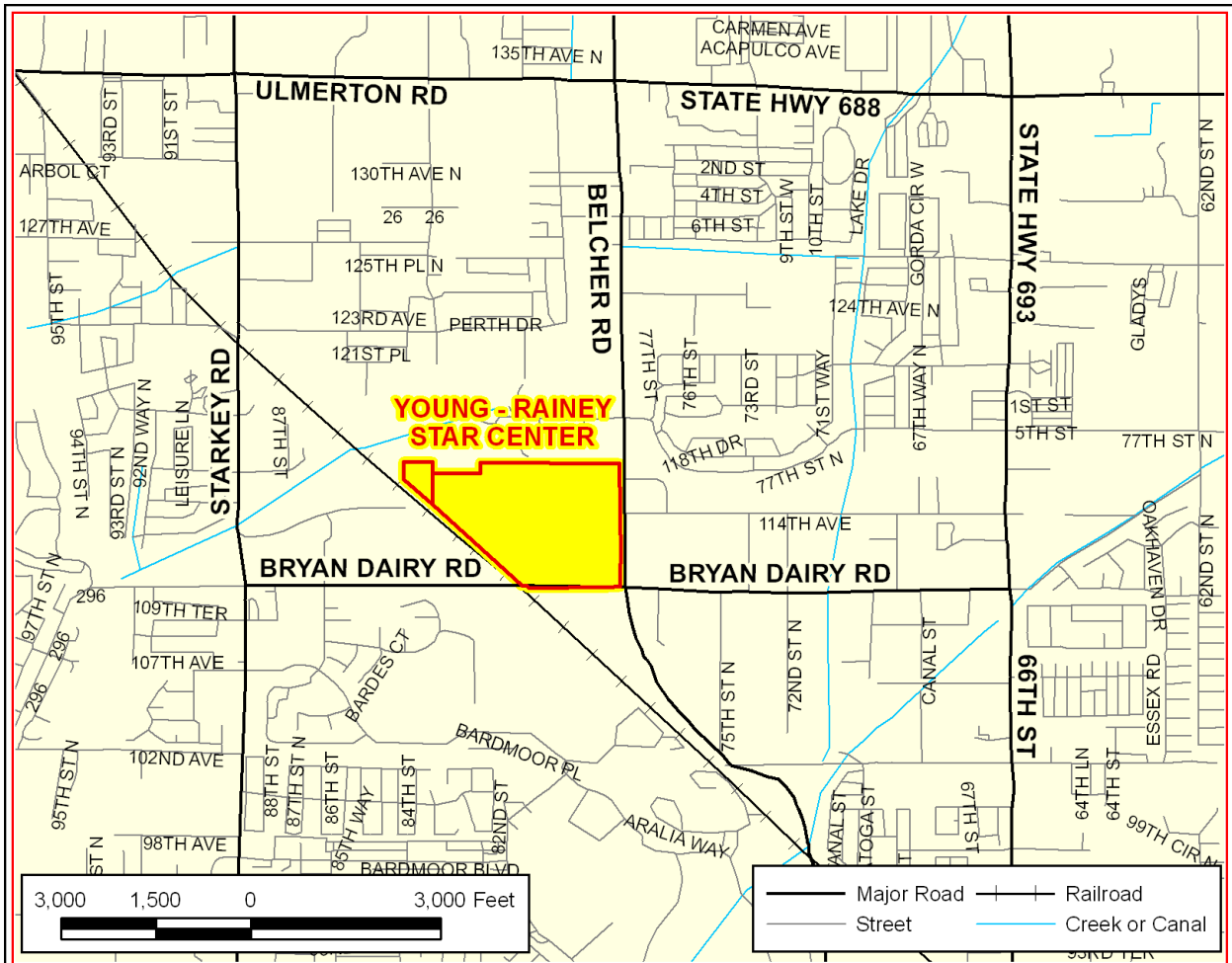
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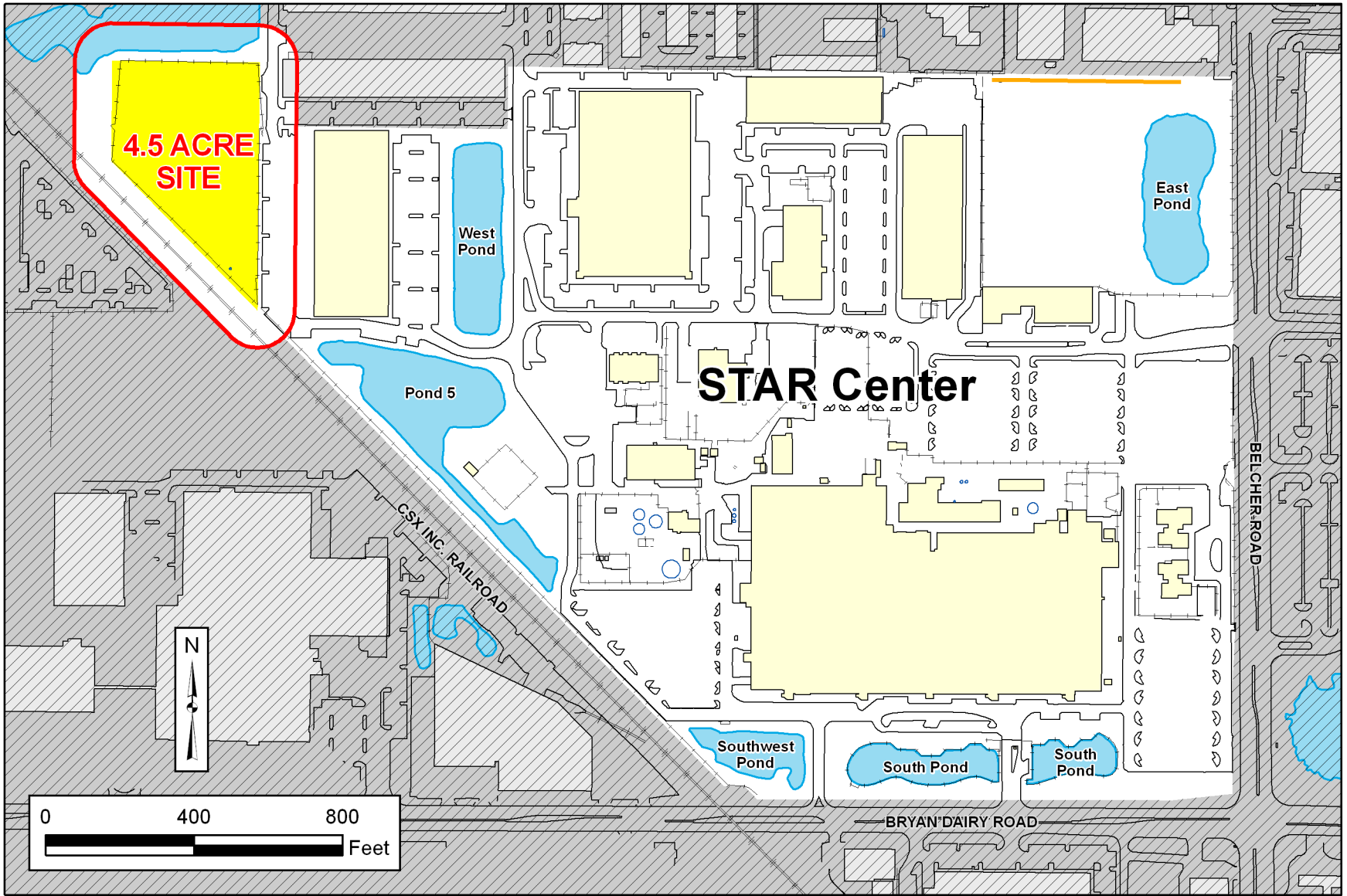
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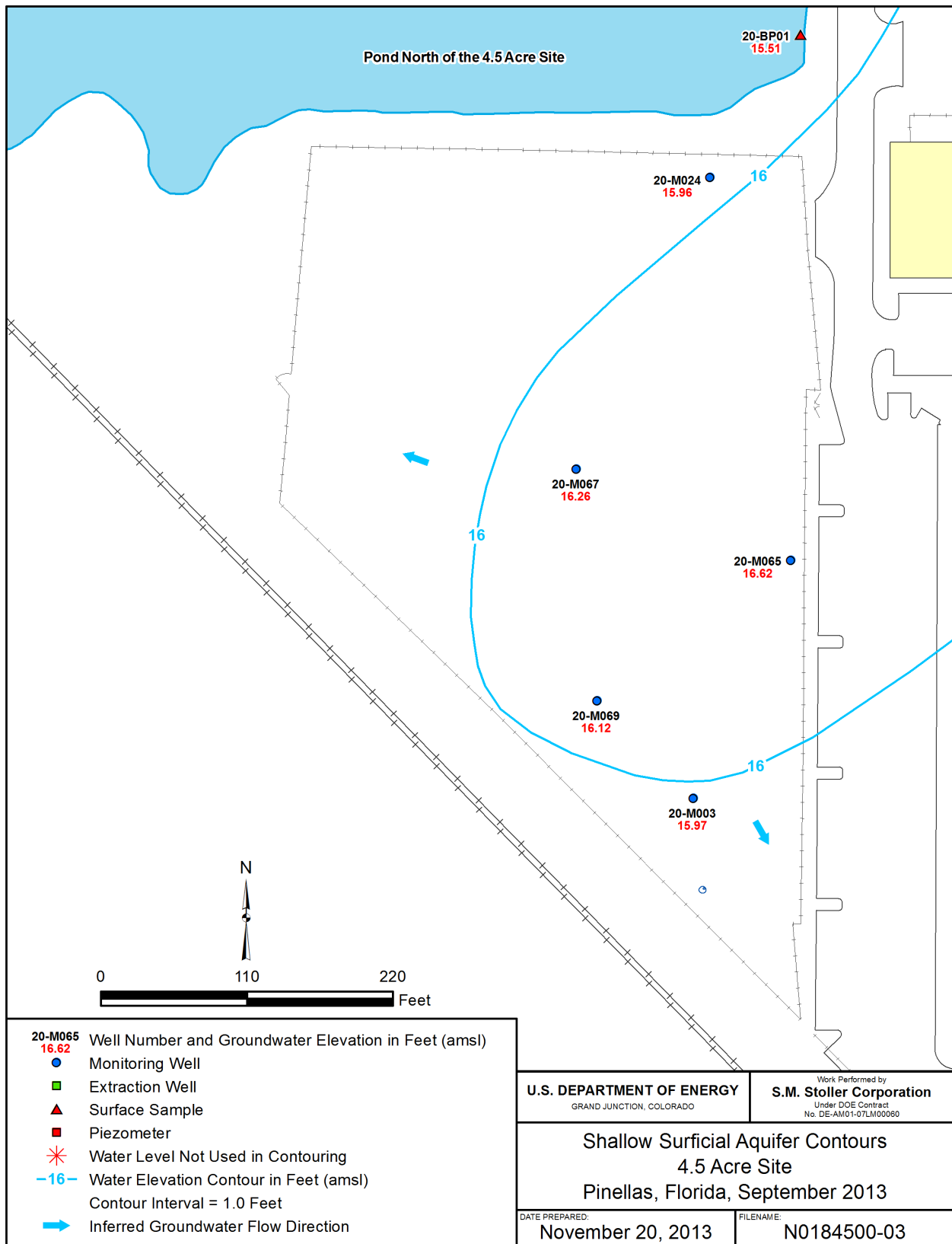
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Figure 1. Young - Rainey STAR Center Location



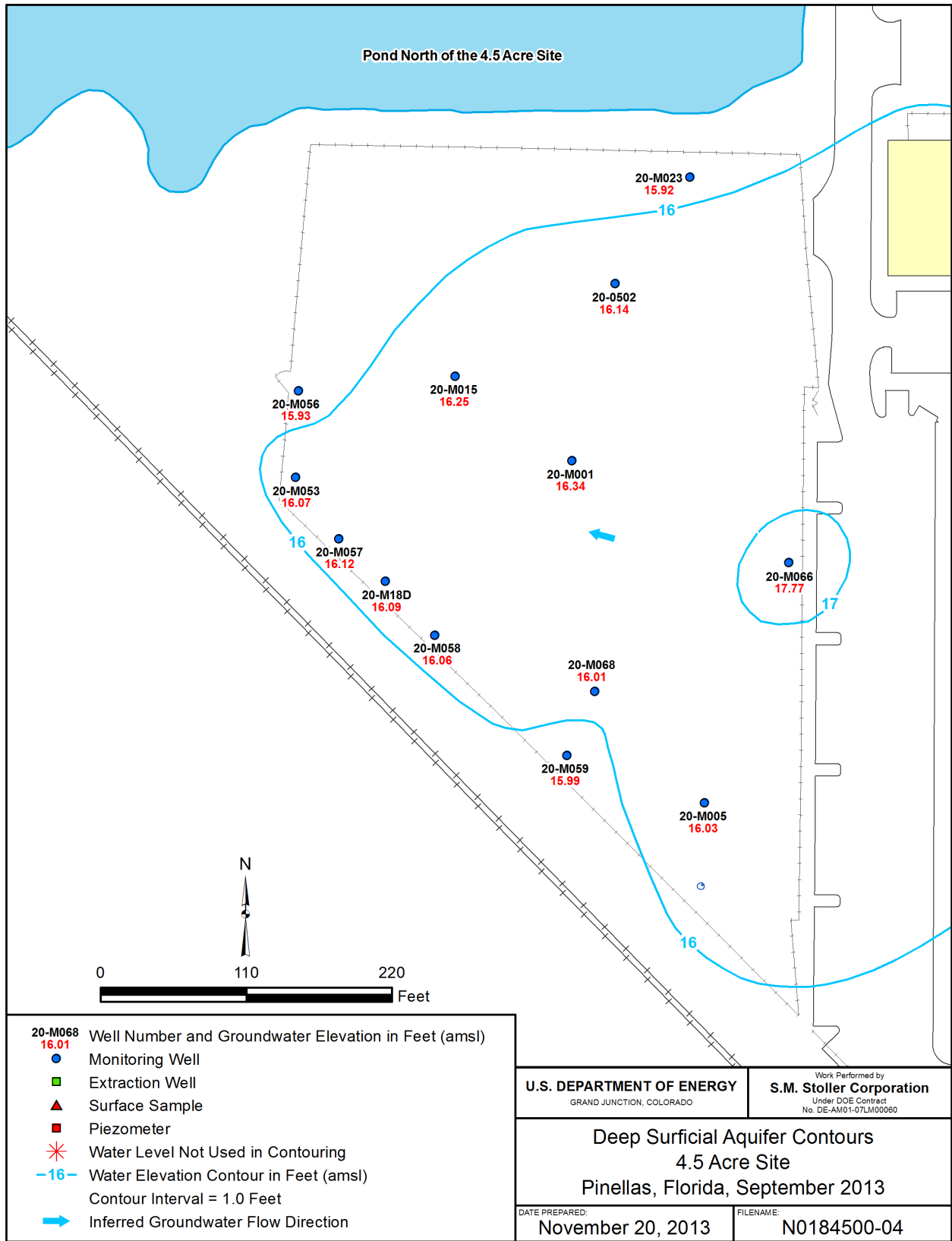
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Figure 2. 4.5 Acre Site Location



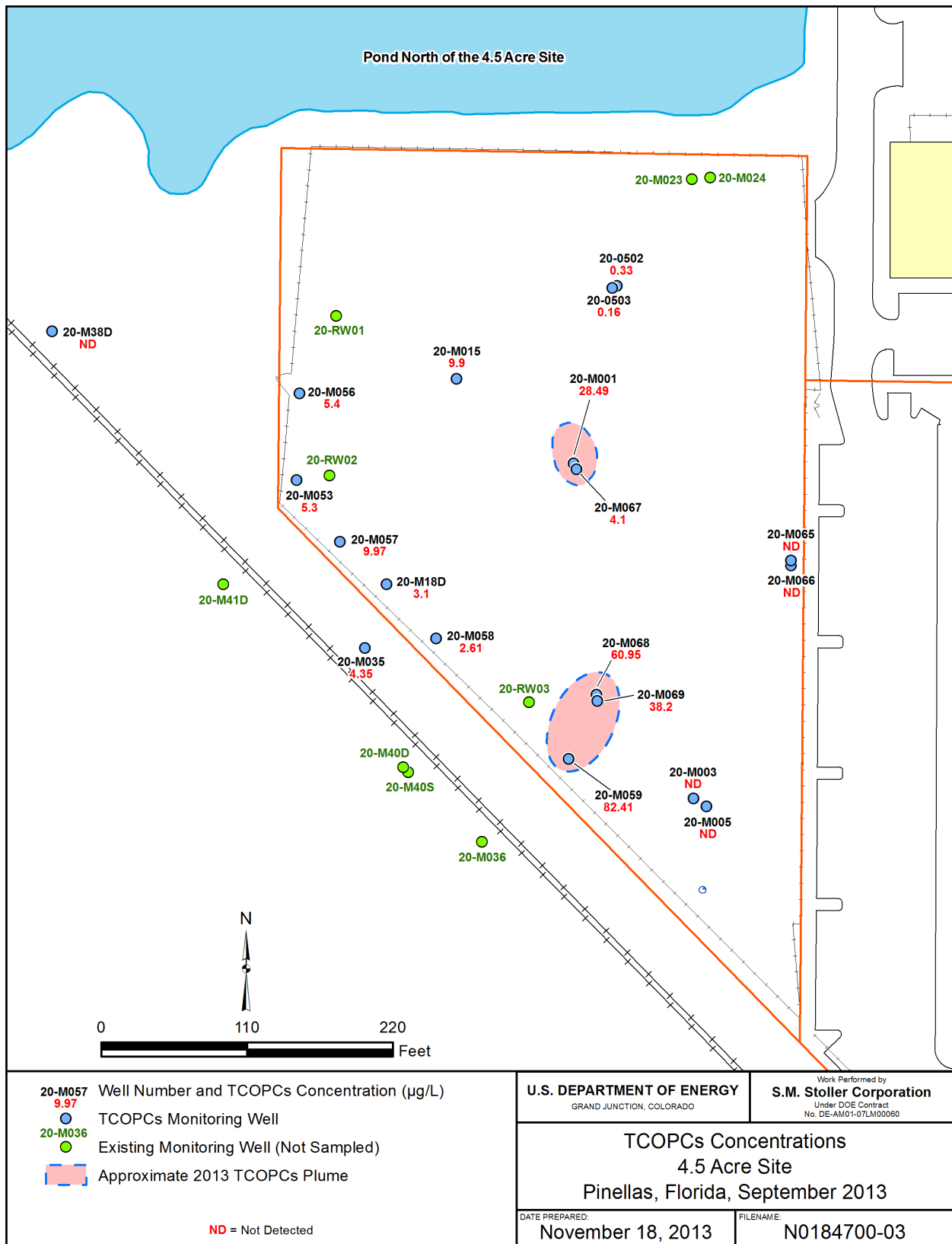
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Figure 3. Shallow Surficial Aquifer Flow, September 2013



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Figure 4. Deep Surficial Aquifer Flow, September 2013



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Figure 5. TCOPCs Concentrations, September 2013

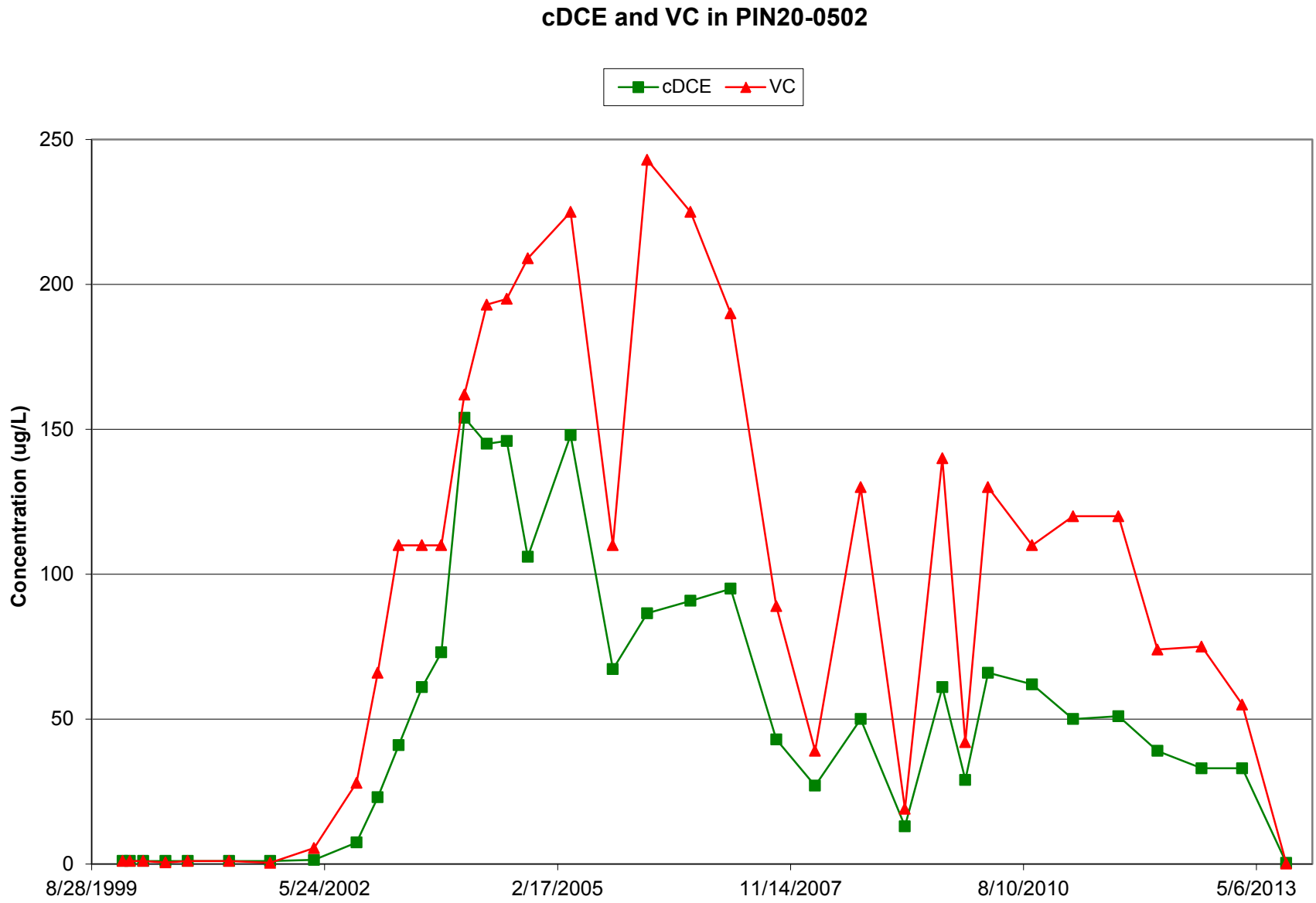


Figure 6. cDCE and VC in PIN20-0502

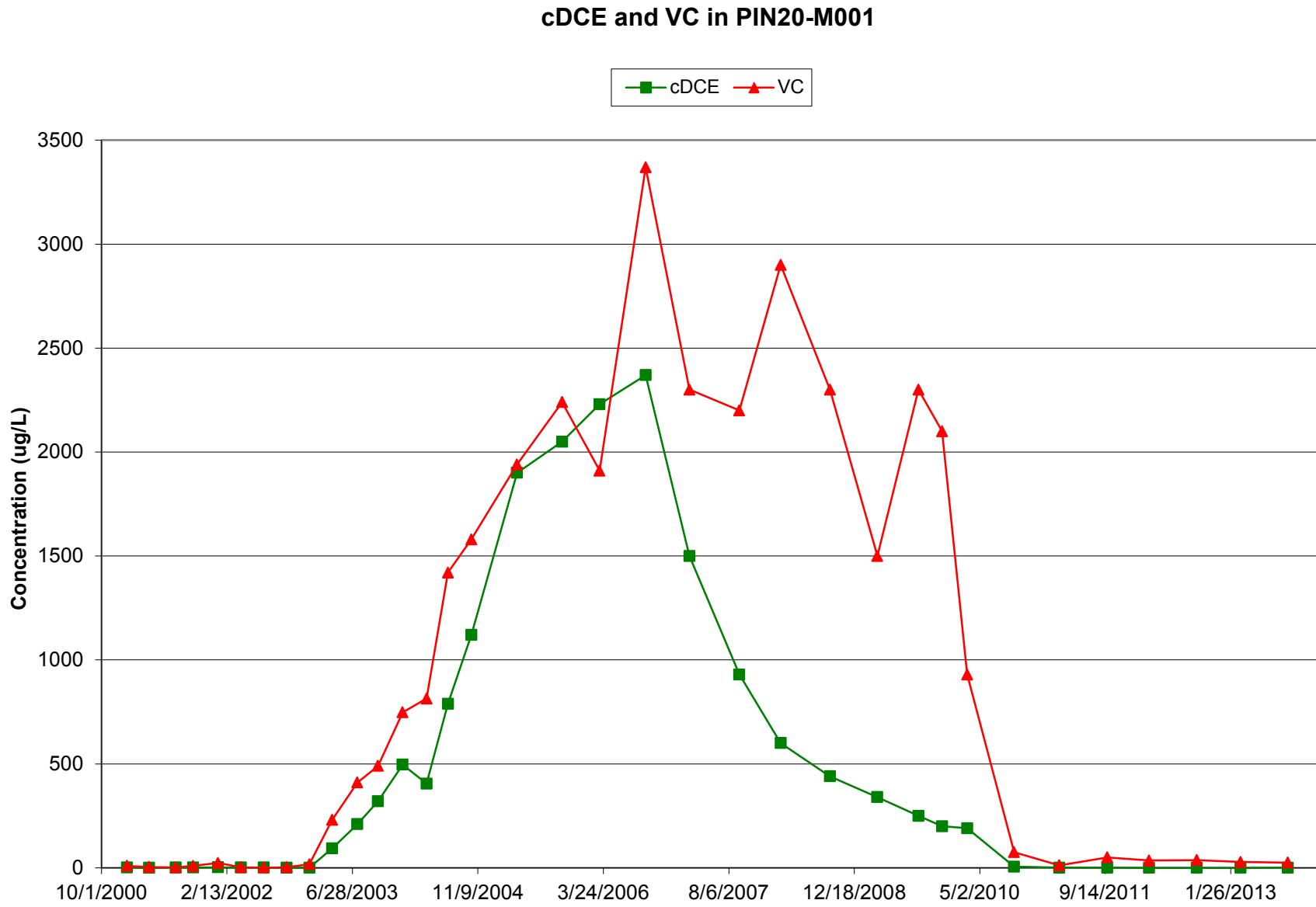
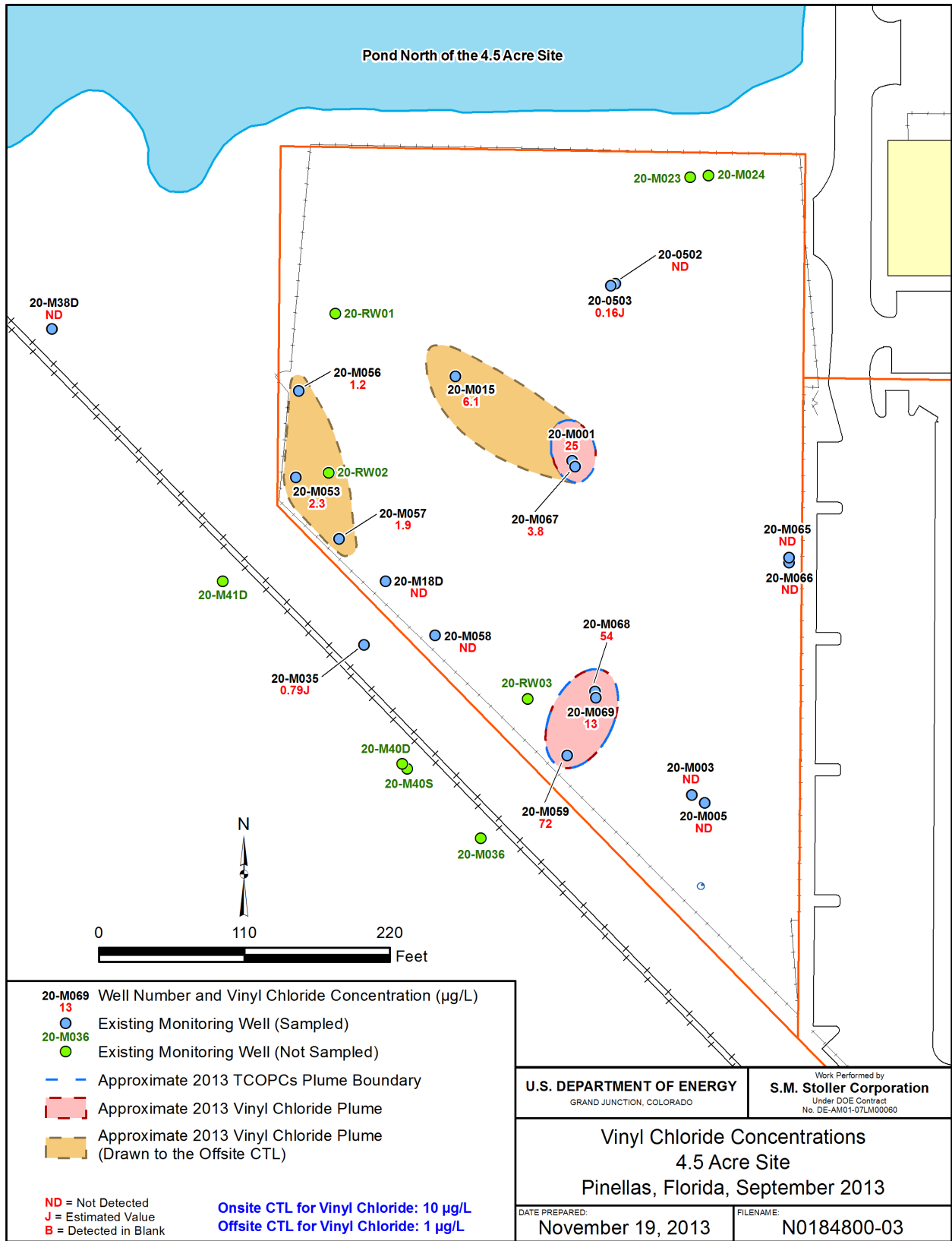


Figure 7. cDCE and VC in PIN20-M001



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Figure 8. Vinyl Chloride Concentrations, September 2013

Table 1. Groundwater-Level Data at the 4.5 Acre Site, September 2013

Location	Measurement		Water Depth (ft bls)	Groundwater Elevation (ft amsl)
	Date	Time		
0502	9/10/2013	08:20	1.26	16.14
0503	9/10/2013	08:26	1.20	16.20
M001	9/10/2013	08:28	1.26	16.34
M003	9/10/2013	09:22	1.93	15.97
M005	9/10/2013	09:28	2.27	16.03
M015	9/10/2013	08:34	2.14	16.25
M023	9/10/2013	08:19	3.55	15.92
M024	9/10/2013	07:39	1.84	15.96
M053	9/10/2013	08:45	1.13	16.07
M056	9/10/2013	08:43	1.17	15.93
M057	9/10/2013	08:52	1.78	16.12
M058	9/10/2013	08:57	1.64	16.06
M059	9/10/2013	09:04	1.81	15.99
M065	9/10/2013	09:33	1.78	16.62
M066	9/10/2013	09:29	0.43	17.77
M067	9/10/2013	08:33	2.44	16.26
M068	9/10/2013	09:11	2.14	16.01
M069	9/10/2013	09:20	1.88	16.12
M18D	9/10/2013	08:54	1.61	16.09
RW01	9/10/2013	08:40	1.53	16.07
RW02	9/10/2013	08:47	1.23	15.87
RW03	9/10/2013	09:02	1.59	16.01

Abbreviations:

ft amsl = feet above mean sea level
ft bls = feet below land surface

Table 2. Surface Water Elevations at the 4.5 Acre Site, September 2013

Location	Measurement		Surface Water Elevation (ft amsl)
	Date	Time	
PIN01	Pond 5		
P501	9/10/2013	12:17	13.79
P502	9/10/2013	12:22	14.05
PIN02	West Pond		
W005	9/10/2013	12:27	13.96
PIN20	Pond North of the 4.5 Acre Site		
BP01	9/10/2013	12:33	15.51

Abbreviations:

ft amsl = feet above mean sea level

Table 3. Field Measurements of Samples Collected at the 4.5 Acre Site, September 2013

Location	Screen Interval (ft bls)	Temperature (°C)	Specific Conductance (µmhos/cm) ^a	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)
0502	21.2–31.2	27.1	975	6	6.72	-37	0.4
0503	13.2–23.2	27.0	1,005	9	6.66	-34	0.6
M001	20–25	26.1	1,354	10	6.37	-193	-
M003	9–14	28.9	702	2	6.62	-52	0.3
M005	25.8–30.7	26.7	866	1	6.37	-33	0.2
M015	20.8–25.8	26.6	1,428	4	6.74	-53	0.2
M035	9–14	-	-	51	-	-	-
M053	20–30	27.7	1,886	7	6.78	-303	-
M056	19–29	-	-	5	-	-	-
M057	20–30	28.5	2,313	17	6.71	-352	-
M058	18–28	-	-	12	-	-	-
M059	19–29	27.0	1,472	5	6.73	-94	-
M065	10–20	29.3	762	10	6.75	-64	0.4
M066	20–30	27.8	930	8	6.69	-61	0.6
M067	10–20	26.9	2,135	75	6.65	-131	-
M068	20–30	25.5	1,124	322	6.58	-91	0.3
M069	10–20	26.3	2,899	11	6.82	-135	0.5
M18D	20–30	28.5	1,854	33	6.49	-343	-
M38D	20–30	28.5	690	3	6.98	-60	1.3

Notes:

^a Temperature corrected to 25 °C

Abbreviations:

- = not measured

ft bls = feet below land surface

µmhos/cm = micromhos per centimeter

mV = millivolts

NTU = nephelometric turbidity units

Table 4. COPC Concentrations from Wells at the 4.5 Acre Site (µg/L)^a

Location	Screen Interval (ft bls)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride	Benzene	TCOPCs ^b
Cleanup Target Level^c			30	700	1000	10	10	
PIN20								
0502	21.2–31.2	9/12/2012	<0.16	33	0.39J	75	<0.16	108
		3/6/2013	<0.16	33	0.4J	55	<0.16	88
		9/11/2013	<0.16	0.33J	<0.15	<0.1	<0.16	0.3
0503	13.2–23.2	9/12/2012	<0.16	0.15J	<0.15	<0.1	<0.16	0.2
		3/6/2013	<0.16	0.82J	<0.15	2.4	<0.16	3.2
		9/11/2013	<0.16	<0.15	<0.15	0.16J	<0.16	0.2
M001	20–25	9/12/2012	<0.16	<0.15	3	37	0.91J	41
		3/6/2013	<0.16	0.24J	3.1	28	1	32
		9/11/2013	<0.16	0.49J	2	25	1	28
M003	9–14	9/12/2012	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
M005	25.8–30.7	9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
M015	20.8–25.8	9/12/2012	<0.16	5.1	<0.15	10	<0.16	15
		3/6/2013	<0.16	12	<0.15	17	<0.16	29
		9/12/2013	<0.16	3.8	<0.15	6.1	<0.16	10
M035	9–14	9/13/2012	0.24J	3.9	0.45J	2.6	<0.16	7.2
		3/7/2013	0.21J	3.7	0.34J	1.3	<0.16	5.6
		9/19/2013	<0.16	3.1	0.46J	0.79J	<0.16	4.4
M053	20–30	9/12/2012	<0.16	4.2	<0.15	3.3	<0.16	7.5
		3/6/2013	<0.16	5.1	<0.15	3.2	<0.16	8.3
		9/11/2013	<0.16	3	<0.15	2.3	<0.16	5.3
M056	19–29	9/12/2012	<0.16	3.4	<0.15	1.4	<0.16	4.8
		3/6/2013	<0.16	2.3	<0.15	<0.1	<0.16	2.3
		9/11/2013	<0.16	4.2	<0.15	1.2	<0.16	5.4
M057	20–30	9/12/2012	<0.16	8.6	0.47J	2.7	<0.16	12
		3/6/2013	<0.16	7.3	0.3J	4.9	<0.16	13
		9/11/2013	<0.16	7.7	0.37J	1.9	<0.16	10

Table 4 (continued). COPC Concentrations from Wells at the 4.5 Acre Site (µg/L)^a

Location	Screen Interval (ft bls)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride	Benzene	TCOPCs ^b
Cleanup Target Level ^c			30	700	1000	10	10	
M058	18–28	9/12/2012	<0.16	3.3	0.31J	2.5	<0.16	6.1
		3/6/2013	<0.16	1.3	<0.15	0.57J	<0.16	1.9
		9/11/2013	<0.16	2.3	0.31J	<0.1	<0.16	2.6
M059	19–29	9/12/2012	<0.16	12	2.9	110	0.27J	125
		3/7/2013	<0.16	3.2	0.79J	20	0.18J	24
		9/11/2013	<0.16	8.3	1.9	72	0.21J	82
M065	10–20	9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
M066	20–30	9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
M067	10–20	9/12/2012	<0.16	0.31J	<0.15	3.1	<0.16	3.4
		3/6/2013	<0.16	<0.15	<0.15	1.2	<0.16	1.2
		9/11/2013	<0.16	0.3J	<0.15	3.8	<0.16	4.1
M068	20–30	9/12/2012	0.67J	1.8	3	79	0.27J	85
		3/7/2013	<0.16	0.41J	2.1	76	<0.16	79
		9/12/2013	0.59J	3	3.1	54	0.26J	61
M069	10–20	9/12/2012	0.18J	23	5.5	17	<0.16	46
		3/7/2013	<0.16	28	8.6	18	<0.16	55
		9/12/2013	<0.16	20	5.2	13	<0.16	38
M18D	20–30	9/12/2012	<0.16	7.1J	0.84J	2.6J	<0.16	11
		3/6/2013	<0.16	8.8	0.5J	1.7	<0.16	11
		9/11/2013	<1.6	3.1J	<1.5	<3.1J	<1.6	3.1
M38D	20–30	9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND
		9/19/2013	<0.16	<0.15	<0.15	<0.1	<0.16	ND

Notes:

Arsenic, while a COPC, is not included in this table or in the TCOPCs value.

^a "<" values are method detection limits.

^b TCOPCs is the sum of the individual COPCs concentrations. Some values have been rounded.

^c The offsite CTL is a factor of 10 lower than the listed onsite (poor water quality) CTL.

Abbreviations:

J = Estimated value; result is between the reporting limit and the method detection limit.

ND = Not detected.

ft bls = feet below land surface.

Table 5. Sodium, Sulfate, and Total Recoverable Petroleum Hydrocarbons Results (mg/L)

Monitoring Well	Date Sampled	Sodium	Sulfate	Total Recoverable Petroleum Hydrocarbons
PIN20-M035	9/19/2013	37	23	9.1
PIN20-M053	7/10/2013	47	770	1.8U
PIN20-M068	7/10/2013	51	190	1.8U

U = not detected at the listed limit.

Table 6. Relative Percent Difference (RPD) for Duplicate Samples, September 2013 (Reported in µg/L)

Sample ID	Duplicate ID	Analyte	Result	Duplicate Result	MDL	RPD
PIN20-M035	PIN20-2519	Acetone	18	18	1.9	0
		<i>cis</i> -1,2-Dichloroethene	3.1	3.1	0.15	0
		Vinyl Chloride	0.79	0.86	0.10	8

MDL = method detection limit

Appendix A

Laboratory Reports

September 2013 Semiannual Monitoring

ANALYTICAL REPORT

Job Number: 280-46671-1

SDG Number: 13085583

Job Description: PINELLAS MONITORING

For:

S.M. Stoller Corporation
2597 Legacy Way
Grand Junction, CO 81503
Attention: Mr. Steve Donovan



Approved for release.
Kae E Yoder
Project Manager II
9/30/2013 6:30 PM

Kae E Yoder, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0190
kae.yoder@testamericainc.com
09/30/2013

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



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CASE NARRATIVE

Client: S.M. Stoller Corporation

Project: PINELLAS MONITORING - 13085583

Report Number: 280-46671-1

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

Results between the method detection limit (MDL) and reporting limit (RL) are flagged with a "J" qualifier to indicate an estimated value. These results are statistically less reliable than results greater than or equal to the RL and should be considered a qualitative value.

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

RECEIPT

The samples were received on 9/14/2013 9:00 AM and 9/16/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 5.7° C.

It can be noted that one cooler was received on Saturday 9/14/2013, while the 2nd cooler was received on Monday 9/16/2013, due to a FedEx shipping delay. The client was notified on 9/17/2013.

All of the 40mL vials submitted for sample PIN99-2456 (LJV-032), requesting VOA analysis, contained air bubbles greater than 6 mm in diameter. The client was notified on 9/17/2013.

GC/MS VOLATILES - SW846 8260B

Due to high constituent concentration, a reduced aliquot size had to be used for the analysis of Vinyl chloride in samples PIN20-M059 (LJV 023). The reporting limit has been elevated accordingly.

Due to the nature of the sample matrix (foamy), sample PIN20-M18D (LJV 029) had to be analyzed using a reduced aliquot size. The reporting limits have been elevated accordingly.

Methylene Chloride, a common laboratory contaminant, was detected in the method blank associated with batch 280-192750 at a level exceeding the reporting limit. Because this common laboratory contaminant is present in the method blank at a level that is less than five times the reporting limit, corrective action is not required. If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Section	Qualifier	Description
GC/MS VOA	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

SAMPLE SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-46671-1	PIN20-0502	Water	09/11/2013 0827	09/16/2013 0900
280-46671-1MS	PIN20-0502	Water	09/11/2013 0827	09/16/2013 0900
280-46671-1MSD	PIN20-0502	Water	09/11/2013 0827	09/16/2013 0900
280-46671-2	PIN20-0503	Water	09/11/2013 0851	09/16/2013 0900
280-46671-3	PIN99-2456	Water	09/11/2013 0800	09/16/2013 0900
280-46671-4	PIN20-M001	Water	09/11/2013 0922	09/16/2013 0900
280-46671-5	PIN20-M003	Water	09/12/2013 1005	09/16/2013 0900
280-46671-6	PIN20-M005	Water	09/12/2013 1059	09/16/2013 0900
280-46671-7	PIN20-M015	Water	09/12/2013 1246	09/16/2013 0900
280-46671-8	PIN20-M053	Water	09/11/2013 1118	09/16/2013 0900
280-46671-9	PIN20-M056	Water	09/11/2013 1048	09/16/2013 0900
280-46671-10	PIN20-M057	Water	09/11/2013 1231	09/16/2013 0900
280-46671-11	PIN20-M058	Water	09/11/2013 1449	09/16/2013 0900
280-46671-12	PIN20-M059	Water	09/11/2013 1518	09/16/2013 0900
280-46671-13	PIN20-M065	Water	09/12/2013 1152	09/16/2013 0900
280-46671-14	PIN20-M066	Water	09/12/2013 1213	09/16/2013 0900
280-46671-15	PIN20-M067	Water	09/11/2013 1027	09/16/2013 0900
280-46671-16	PIN20-M068	Water	09/12/2013 0832	09/16/2013 0900
280-46671-17	PIN20-M069	Water	09/12/2013 0900	09/16/2013 0900
280-46671-18	PIN20-M18D	Water	09/11/2013 1407	09/16/2013 0900

EXECUTIVE SUMMARY - Detections

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Sample ID	Client Sample ID	Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-46671-1	PIN20-0502	cis-1,2-Dichloroethene	0.33	J	1.0	ug/L	8260B
280-46671-2	PIN20-0503	Acetone	2.4	J	10	ug/L	8260B
		Vinyl chloride	0.16	J	1.0	ug/L	8260B
280-46671-3	PIN99-2456	Methylene Chloride	1.9		1.0	ug/L	8260B
280-46671-4	PIN20-M001	Benzene	1.0		1.0	ug/L	8260B
		cis-1,2-Dichloroethene	0.49	J	1.0	ug/L	8260B
		trans-1,2-Dichloroethene	2.0		1.0	ug/L	8260B
		1,1-Dichloropropene	0.73	J	1.0	ug/L	8260B
		Toluene	0.30	J	1.0	ug/L	8260B
		Vinyl chloride	25		1.0	ug/L	8260B
280-46671-7	PIN20-M015	cis-1,2-Dichloroethene	3.8		1.0	ug/L	8260B
		Vinyl chloride	6.1		1.0	ug/L	8260B
280-46671-8	PIN20-M053	cis-1,2-Dichloroethene	3.0		1.0	ug/L	8260B
		Vinyl chloride	2.3		1.0	ug/L	8260B
280-46671-9	PIN20-M056	Acetone	2.1	J	10	ug/L	8260B
		cis-1,2-Dichloroethene	4.2		1.0	ug/L	8260B
		Vinyl chloride	1.2		1.0	ug/L	8260B
280-46671-10	PIN20-M057	Acetone	7.8	J	10	ug/L	8260B
		2-Butanone (MEK)	9.3		5.0	ug/L	8260B
		cis-1,2-Dichloroethene	7.7		1.0	ug/L	8260B
		trans-1,2-Dichloroethene	0.37	J	1.0	ug/L	8260B
		Vinyl chloride	1.9		1.0	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Sample ID	Client Sample ID	Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-46671-11	PIN20-M058	Acetone	46		10	ug/L	8260B
		2-Butanone (MEK)	19		5.0	ug/L	8260B
		cis-1,2-Dichloroethene	2.3		1.0	ug/L	8260B
		trans-1,2-Dichloroethene	0.31	J	1.0	ug/L	8260B
280-46671-12	PIN20-M059	Benzene	0.21	J	1.0	ug/L	8260B
		cis-1,2-Dichloroethene	8.3		1.0	ug/L	8260B
		trans-1,2-Dichloroethene	1.9		1.0	ug/L	8260B
		Vinyl chloride	72		2.0	ug/L	8260B
280-46671-13	PIN20-M065	Acetone	2.9	J	10	ug/L	8260B
280-46671-14	PIN20-M066	Acetone	3.2	J	10	ug/L	8260B
280-46671-15	PIN20-M067	cis-1,2-Dichloroethene	0.30	J	1.0	ug/L	8260B
		Vinyl chloride	3.8		1.0	ug/L	8260B
280-46671-16	PIN20-M068	Benzene	0.26	J	1.0	ug/L	8260B
		cis-1,2-Dichloroethene	3.0		1.0	ug/L	8260B
		trans-1,2-Dichloroethene	3.1		1.0	ug/L	8260B
		Trichloroethene	0.59	J	1.0	ug/L	8260B
		Vinyl chloride	54		1.0	ug/L	8260B
280-46671-17	PIN20-M069	cis-1,2-Dichloroethene	20		1.0	ug/L	8260B
		trans-1,2-Dichloroethene	5.2		1.0	ug/L	8260B
		Vinyl chloride	13		1.0	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-46671-18	PIN20-M18D					
Chloromethane		35		10	ug/L	8260B
Dichlorodifluoromethane		15		10	ug/L	8260B
1,2-Dichloroethane		7.8	J	10	ug/L	8260B
cis-1,2-Dichloroethene		3.1	J	10	ug/L	8260B
Vinyl chloride		3.1	J	10	ug/L	8260B

METHOD SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B

Lab References:

TAL DEN = TestAmerica Denver

Method References:

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

METHOD / ANALYST SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method	Analyst	Analyst ID
SW846 8260B	Contreras, Evan	EC
SW846 8260B	Lines, Jeremy N	JNL
SW846 8260B	Thompson, Lee W	LWT

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-0502

Lab Sample ID: 280-46671-1

Date Sampled: 09/11/2013 0827

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5683.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1138			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1138				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.33	J	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-0502

Lab Sample ID: 280-46671-1
Client Matrix: Water

Date Sampled: 09/11/2013 0827
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5683.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1138		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1138		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		70 - 127
Toluene-d8 (Surr)	91		80 - 125
4-Bromofluorobenzene (Surr)	94		78 - 120
Dibromofluoromethane (Surr)	93		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-0503

Lab Sample ID: 280-46671-2

Date Sampled: 09/11/2013 0851

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192399	Instrument ID:	VMS_G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G8973.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/20/2013 1651			Final Weight/Volume:	20 mL
Prep Date:	09/20/2013 1651				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.4	J	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-0503

Lab Sample ID: 280-46671-2

Date Sampled: 09/11/2013 0851

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192399	Instrument ID: VMS_G
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: G8973.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/20/2013 1651		Final Weight/Volume: 20 mL
Prep Date: 09/20/2013 1651		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.16	J	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 127
Toluene-d8 (Surr)	99		80 - 125
4-Bromofluorobenzene (Surr)	102		78 - 120
Dibromofluoromethane (Surr)	95		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN99-2456

Lab Sample ID: 280-46671-3

Date Sampled: 09/11/2013 0800

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5686.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1247			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1247				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	1.9	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN99-2456

Lab Sample ID: 280-46671-3
Client Matrix: Water

Date Sampled: 09/11/2013 0800
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5686.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1247			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1247				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 127
Toluene-d8 (Surr)	95		80 - 125
4-Bromofluorobenzene (Surr)	101		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M001

Lab Sample ID: 280-46671-4

Date Sampled: 09/11/2013 0922

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5687.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1311			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1311				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	1.0		0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.49	J	0.15	1.0
trans-1,2-Dichloroethene	2.0		0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.73	J	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M001

Lab Sample ID: 280-46671-4

Date Sampled: 09/11/2013 0922

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5687.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1311			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1311				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.30	J	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	25		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 127
Toluene-d8 (Surr)	103		80 - 125
4-Bromofluorobenzene (Surr)	112		78 - 120
Dibromofluoromethane (Surr)	115		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M003

Lab Sample ID: 280-46671-5

Date Sampled: 09/12/2013 1005

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5688.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1334			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1334				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M003

Lab Sample ID: 280-46671-5
Client Matrix: Water

Date Sampled: 09/12/2013 1005
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5688.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1334			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1334				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		70 - 127
Toluene-d8 (Surr)	94		80 - 125
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M005

Lab Sample ID: 280-46671-6

Date Sampled: 09/12/2013 1059

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5689.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1357			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1357				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M005

Lab Sample ID: 280-46671-6
Client Matrix: Water

Date Sampled: 09/12/2013 1059
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5689.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1357		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1357		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 127
Toluene-d8 (Surr)	87		80 - 125
4-Bromofluorobenzene (Surr)	94		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M015

Lab Sample ID: 280-46671-7

Date Sampled: 09/12/2013 1246

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5690.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1420			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1420				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	3.8		0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M015

Lab Sample ID: 280-46671-7

Date Sampled: 09/12/2013 1246

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5690.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1420			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1420				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	6.1		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 127
Toluene-d8 (Surr)	94		80 - 125
4-Bromofluorobenzene (Surr)	101		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M053

Lab Sample ID: 280-46671-8

Date Sampled: 09/11/2013 1118

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5691.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1443			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1443				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	3.0		0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M053

Lab Sample ID: 280-46671-8
Client Matrix: Water

Date Sampled: 09/11/2013 1118
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5691.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1443			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1443				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	2.3		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 127
Toluene-d8 (Surr)	92		80 - 125
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M056

Lab Sample ID: 280-46671-9

Date Sampled: 09/11/2013 1048

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5692.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1506			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1506				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.1	J	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	4.2		0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M056

Lab Sample ID: 280-46671-9

Date Sampled: 09/11/2013 1048

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5692.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1506			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1506				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	1.2		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 127
Toluene-d8 (Surr)	111		80 - 125
4-Bromofluorobenzene (Surr)	118		78 - 120
Dibromofluoromethane (Surr)	119		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M057

Lab Sample ID: 280-46671-10

Date Sampled: 09/11/2013 1231

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5693.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1529			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1529				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	7.8	J	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	9.3		2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	7.7		0.15	1.0
trans-1,2-Dichloroethene	0.37	J	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M057

Lab Sample ID: 280-46671-10
Client Matrix: Water

Date Sampled: 09/11/2013 1231
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5693.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1529		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1529		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	1.9		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 127
Toluene-d8 (Surr)	88		80 - 125
4-Bromofluorobenzene (Surr)	95		78 - 120
Dibromofluoromethane (Surr)	96		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M058

Lab Sample ID: 280-46671-11

Date Sampled: 09/11/2013 1449

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5694.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1552			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1552				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	46		1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	19		2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	2.3		0.15	1.0
trans-1,2-Dichloroethene	0.31	J	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M058

Lab Sample ID: 280-46671-11

Date Sampled: 09/11/2013 1449

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5694.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1552			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1552				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 127
Toluene-d8 (Surr)	101		80 - 125
4-Bromofluorobenzene (Surr)	114		78 - 120
Dibromofluoromethane (Surr)	113		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M059

Lab Sample ID: 280-46671-12

Date Sampled: 09/11/2013 1518

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5695.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1615			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1615				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.21	J	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	8.3		0.15	1.0
trans-1,2-Dichloroethene	1.9		0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M059

Lab Sample ID: 280-46671-12

Date Sampled: 09/11/2013 1518

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5695.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1615		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1615		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84		70 - 127
Toluene-d8 (Surr)	89		80 - 125
4-Bromofluorobenzene (Surr)	95		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M059

Lab Sample ID: 280-46671-12

Date Sampled: 09/11/2013 1518

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192750	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5816.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Analysis Date:	09/23/2013 2344	Run Type:	DL	Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 2344				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	72		0.20	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		70 - 127
Toluene-d8 (Surr)	97		80 - 125
4-Bromofluorobenzene (Surr)	106		78 - 120
Dibromofluoromethane (Surr)	102		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M065

Lab Sample ID: 280-46671-13

Date Sampled: 09/12/2013 1152

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5696.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1638			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1638				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.9	J	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M065

Lab Sample ID: 280-46671-13
Client Matrix: Water

Date Sampled: 09/12/2013 1152
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5696.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1638		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1638		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 127
Toluene-d8 (Surr)	99		80 - 125
4-Bromofluorobenzene (Surr)	109		78 - 120
Dibromofluoromethane (Surr)	109		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M066

Lab Sample ID: 280-46671-14

Date Sampled: 09/12/2013 1213

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5697.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1701			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1701				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	3.2	J	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M066

Lab Sample ID: 280-46671-14
Client Matrix: Water

Date Sampled: 09/12/2013 1213
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5697.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1701			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1701				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86		70 - 127
Toluene-d8 (Surr)	91		80 - 125
4-Bromofluorobenzene (Surr)	97		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M067

Lab Sample ID: 280-46671-15

Date Sampled: 09/11/2013 1027

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5698.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1724			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1724				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.30	J	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

Client Sample ID: PIN20-M067

Lab Sample ID: 280-46671-15
Client Matrix: Water

Date Sampled: 09/11/2013 1027
Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5698.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1724		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1724		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	3.8		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 127
Toluene-d8 (Surr)	106		80 - 125
4-Bromofluorobenzene (Surr)	114		78 - 120
Dibromofluoromethane (Surr)	118		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M068

Lab Sample ID: 280-46671-16

Date Sampled: 09/12/2013 0832

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5799.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1746			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1746				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.26	J	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	3.0		0.15	1.0
trans-1,2-Dichloroethene	3.1		0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M068

Lab Sample ID: 280-46671-16

Date Sampled: 09/12/2013 0832

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5799.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1746			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1746				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.59	J	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	54		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 127
Toluene-d8 (Surr)	98		80 - 125
4-Bromofluorobenzene (Surr)	105		78 - 120
Dibromofluoromethane (Surr)	104		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M069

Lab Sample ID: 280-46671-17

Date Sampled: 09/12/2013 0900

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192630	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5800.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/23/2013 1809			Final Weight/Volume:	20 mL
Prep Date:	09/23/2013 1809				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	20		0.15	1.0
trans-1,2-Dichloroethene	5.2		0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M069

Lab Sample ID: 280-46671-17

Date Sampled: 09/12/2013 0900

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: RR5800.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1809		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1809		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	13		0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 127
Toluene-d8 (Surr)	108		80 - 125
4-Bromofluorobenzene (Surr)	115		78 - 120
Dibromofluoromethane (Surr)	117		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M18D

Lab Sample ID: 280-46671-18

Date Sampled: 09/11/2013 1407

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192750	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5838.D
Dilution:	1.0			Initial Weight/Volume:	2 mL
Analysis Date:	09/24/2013 0758			Final Weight/Volume:	20 mL
Prep Date:	09/24/2013 0758				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	19	U	19	100
Benzene	1.6	U	1.6	10
Bromobenzene	1.7	U	1.7	10
Bromochloromethane	1.0	U	1.0	10
Bromodichloromethane	1.7	U	1.7	10
Bromoform	1.9	U	1.9	10
Bromomethane	2.1	U	2.1	10
2-Butanone (MEK)	20	U	20	50
n-Butylbenzene	3.2	U	3.2	10
sec-Butylbenzene	1.7	U	1.7	10
tert-Butylbenzene	1.6	U	1.6	10
Carbon disulfide	4.5	U	4.5	10
Carbon tetrachloride	1.9	U	1.9	10
Chlorobenzene	1.7	U	1.7	10
Dibromochloromethane	1.7	U	1.7	10
Chloroethane	4.1	U	4.1	10
Chloroform	1.6	U	1.6	10
Chloromethane	35		3.0	10
2-Chlorotoluene	1.7	U	1.7	10
4-Chlorotoluene	2.1	U	2.1	10
1,2-Dibromo-3-Chloropropane	4.7	U	4.7	10
Dibromomethane	1.7	U	1.7	10
1,2-Dichlorobenzene	1.5	U	1.5	10
1,3-Dichlorobenzene	1.3	U	1.3	10
1,4-Dichlorobenzene	1.6	U	1.6	10
Dichlorodifluoromethane	15		3.1	10
1,1-Dichloroethane	2.2	U	2.2	10
1,2-Dichloroethane	7.8	J	1.3	10
cis-1,2-Dichloroethene	3.1	J	1.5	10
trans-1,2-Dichloroethene	1.5	U	1.5	10
1,1-Dichloroethene	2.3	U	2.3	10
1,2-Dichloropropane	1.8	U	1.8	10
1,3-Dichloropropane	2.2	U	2.2	10
2,2-Dichloropropane	1.8	U	1.8	10
cis-1,3-Dichloropropene	1.6	U	1.6	10
trans-1,3-Dichloropropene	1.9	U	1.9	10
1,1-Dichloropropene	1.9	U	1.9	10
Ethylbenzene	1.6	U	1.6	10
Hexachlorobutadiene	3.6	U	3.6	10
2-Hexanone	17	U	17	50
Isopropylbenzene	1.9	U	1.9	10
4-Isopropyltoluene	2.0	U	2.0	10
Methylene Chloride	3.2	U	3.2	10
4-Methyl-2-pentanone	9.8	U	9.8	50
Naphthalene	2.2	U	2.2	10
n-Propylbenzene	1.6	U	1.6	10

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Client Sample ID: PIN20-M18D

Lab Sample ID: 280-46671-18

Date Sampled: 09/11/2013 1407

Client Matrix: Water

Date Received: 09/16/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-192750	Instrument ID:	VMS_R2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	RR5838.D
Dilution:	1.0			Initial Weight/Volume:	2 mL
Analysis Date:	09/24/2013 0758			Final Weight/Volume:	20 mL
Prep Date:	09/24/2013 0758				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	1.7	U	1.7	10
1,1,1,2-Tetrachloroethane	2.1	U	2.1	10
1,1,2,2-Tetrachloroethane	2.1	U	2.1	10
Tetrachloroethene	2.0	U	2.0	10
Toluene	1.7	U	1.7	10
1,2,3-Trichlorobenzene	2.1	U	2.1	10
1,2,4-Trichlorobenzene	2.1	U	2.1	10
1,1,1-Trichloroethane	1.6	U	1.6	10
1,1,2-Trichloroethane	2.7	U	2.7	10
Trichloroethene	1.6	U	1.6	10
Trichlorofluoromethane	2.9	U	2.9	10
1,2,3-Trichloropropane	3.3	U	3.3	10
1,2,4-Trimethylbenzene	1.5	U	1.5	10
1,3,5-Trimethylbenzene	1.6	U	1.6	10
Vinyl chloride	3.1	J	1.0	10
Xylenes, Total	1.9	U	1.9	10
1,2-Dibromoethane	1.8	U	1.8	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 127
Toluene-d8 (Surr)	103		80 - 125
4-Bromofluorobenzene (Surr)	105		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-46671-1	PIN20-0502	93	80	91	94
280-46671-2	PIN20-0503	95	98	99	102
280-46671-3	PIN99-2456	101	87	95	101
280-46671-4	PIN20-M001	115	104	103	112
280-46671-5	PIN20-M003	101	88	94	100
280-46671-6	PIN20-M005	97	89	87	94
280-46671-7	PIN20-M015	100	89	94	101
280-46671-8	PIN20-M053	101	89	92	100
280-46671-9	PIN20-M056	119	107	111	118
280-46671-10	PIN20-M057	96	87	88	95
280-46671-11	PIN20-M058	113	109	101	114
280-46671-12	PIN20-M059	97	84	89	95
280-46671-12 DL	PIN20-M059 DL	102	88	97	106
280-46671-13	PIN20-M065	109	99	99	109
280-46671-14	PIN20-M066	97	86	91	97
280-46671-15	PIN20-M067	118	105	106	114
280-46671-16	PIN20-M068	104	93	98	105
280-46671-17	PIN20-M069	117	108	108	115
280-46671-18	PIN20-M18D	97	87	103	105
MB 280-192399/5		89	93	93	101
MB 280-192630/5		117	102	108	111
MB 280-192750/5		112	97	109	115
LCS 280-192399/4		97	100	105	103
LCS 280-192630/4		101	89	95	99
LCS 280-192750/4		94	81	93	79
280-46671-1 MS	PIN20-0502 MS	104	93	93	97
280-46603-E-16 MS		95	97	100	98
280-46737-D-1 MS		106	89	103	102
280-46671-1 MSD	PIN20-0502 MSD	94	83	85	91

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	77-120
DCA = 1,2-Dichloroethane-d4 (Surr)	70-127
TOL = Toluene-d8 (Surr)	80-125
BFB = 4-Bromofluorobenzene (Surr)	78-120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-46603-E-16 MSD		96	103	101	104
280-46737-D-1 MSD		93	80	95	97

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	77-120
DCA = 1,2-Dichloroethane-d4 (Surr)	70-127
TOL = Toluene-d8 (Surr)	80-125
BFB = 4-Bromofluorobenzene (Surr)	78-120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method Blank - Batch: 280-192399

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-192399/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/20/2013 1124
 Prep Date: 09/20/2013 1124
 Leach Date: N/A

Analysis Batch: 280-192399
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_G
 Lab File ID: G8959.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method Blank - Batch: 280-192399

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-192399/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/20/2013 1124
 Prep Date: 09/20/2013 1124
 Leach Date: N/A

Analysis Batch: 280-192399
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_G
 Lab File ID: G8959.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
n-Propylbenzene	0.16	U	0.16	1.0
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	70 - 127
Toluene-d8 (Surr)	93	80 - 125
4-Bromofluorobenzene (Surr)	101	78 - 120
Dibromofluoromethane (Surr)	89	77 - 120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Control Sample - Batch: 280-192399

Method: 8260B

Preparation: 5030B

Lab Sample ID: LCS 280-192399/4	Analysis Batch: 280-192399	Instrument ID: VMS_G
Client Matrix: Water	Prep Batch: N/A	Lab File ID: G8958.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/20/2013 1102	Units: ug/L	Final Weight/Volume: 20 mL
Prep Date: 09/20/2013 1102		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	5.00	5.18	104	74 - 135	
Bromodichloromethane	5.00	5.12	102	73 - 135	
Carbon tetrachloride	5.00	5.87	117	67 - 135	
Chlorobenzene	5.00	5.44	109	76 - 135	
Chloroform	5.00	5.42	108	76 - 120	
1,3-Dichlorobenzene	5.00	5.36	107	74 - 135	
1,1-Dichloroethane	5.00	5.54	111	75 - 135	
trans-1,2-Dichloroethene	5.00	5.70	114	75 - 135	
1,1-Dichloroethene	5.00	5.75	115	71 - 136	
1,2-Dichloropropane	5.00	5.18	104	71 - 120	
Ethylbenzene	5.00	5.60	112	72 - 120	
Methylene Chloride	5.00	5.24	105	54 - 141	
Tetrachloroethene	5.00	6.10	122	70 - 135	
Toluene	5.00	5.18	104	73 - 120	
1,1,1-Trichloroethane	5.00	5.62	112	70 - 135	
Trichloroethene	5.00	5.28	106	73 - 135	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		100		70 - 127	
Toluene-d8 (Surr)		105		80 - 125	
4-Bromofluorobenzene (Surr)		103		78 - 120	
Dibromofluoromethane (Surr)		97		77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192399**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46603-E-16 MS	Analysis Batch: 280-192399	Instrument ID: VMS_G
Client Matrix: Water	Prep Batch: N/A	Lab File ID: G8961.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/20/2013 1226		Final Weight/Volume: 20 mL
Prep Date: 09/20/2013 1226		
Leach Date: N/A		

MSD Lab Sample ID: 280-46603-E-16 MSD	Analysis Batch: 280-192399	Instrument ID: VMS_G
Client Matrix: Water	Prep Batch: N/A	Lab File ID: G8962.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/20/2013 1248		Final Weight/Volume: 20 mL
Prep Date: 09/20/2013 1248		
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	103	99	74 - 135	4	20		
Bromodichloromethane	103	105	73 - 135	2	20		
Carbon tetrachloride	111	103	67 - 135	7	21		
Chlorobenzene	105	104	76 - 135	1	20		
Chloroform	108	107	76 - 120	2	20		
1,3-Dichlorobenzene	113	107	74 - 135	5	20		
1,1-Dichloroethane	111	110	75 - 135	1	21		
trans-1,2-Dichloroethene	109	102	75 - 135	6	24		
1,1-Dichloroethene	111	106	71 - 136	4	20		
1,2-Dichloropropane	105	105	71 - 120	0	20		
Ethylbenzene	106	106	72 - 120	0	26		
Methylene Chloride	90	91	54 - 141	1	20		
Tetrachloroethene	111	108	70 - 135	3	20		
Toluene	100	100	73 - 120	1	20		
1,1,1-Trichloroethane	110	102	70 - 135	7	20		
Trichloroethene	99	99	73 - 135	0	20		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		97	103			70 - 127	
Toluene-d8 (Surr)		100	101			80 - 125	
4-Bromofluorobenzene (Surr)		98	104			78 - 120	
Dibromofluoromethane (Surr)		95	96			77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1
Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192399**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46603-E-16 MS Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/20/2013 1226
Prep Date: 09/20/2013 1226
Leach Date: N/A

MSD Lab Sample ID: 280-46603-E-16 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/20/2013 1248
Prep Date: 09/20/2013 1248
Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Benzene	0.16	U	5.00	5.00	5.15	4.96
Bromodichloromethane	0.17	U	5.00	5.00	5.14	5.26
Carbon tetrachloride	0.19	U	5.00	5.00	5.53	5.14
Chlorobenzene	0.17	U	5.00	5.00	5.27	5.21
Chloroform	0.16	U	5.00	5.00	5.42	5.33
1,3-Dichlorobenzene	0.13	U	5.00	5.00	5.66	5.36
1,1-Dichloroethane	0.23	J	5.00	5.00	5.80	5.72
trans-1,2-Dichloroethene	0.15	U	5.00	5.00	5.43	5.09
1,1-Dichloroethene	0.23	U	5.00	5.00	5.54	5.32
1,2-Dichloropropane	0.18	U	5.00	5.00	5.27	5.27
Ethylbenzene	0.16	U	5.00	5.00	5.28	5.29
Methylene Chloride	0.32	U	5.00	5.00	4.51	4.55
Tetrachloroethene	0.20	U	5.00	5.00	5.54	5.39
Toluene	0.17	U	5.00	5.00	4.98	5.02
1,1,1-Trichloroethane	0.16	U	5.00	5.00	5.50	5.12
Trichloroethene	0.16	U	5.00	5.00	4.95	4.97

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method Blank - Batch: 280-192630

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-192630/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/23/2013 1008
 Prep Date: 09/23/2013 1008
 Leach Date: N/A

Analysis Batch: 280-192630
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R2
 Lab File ID: RR5682.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method Blank - Batch: 280-192630

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-192630/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/23/2013 1008
 Prep Date: 09/23/2013 1008
 Leach Date: N/A

Analysis Batch: 280-192630
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R2
 Lab File ID: RR5682.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
n-Propylbenzene	0.16	U	0.16	1.0
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	70 - 127
Toluene-d8 (Surr)	108	80 - 125
4-Bromofluorobenzene (Surr)	111	78 - 120
Dibromofluoromethane (Surr)	117	77 - 120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Control Sample - Batch: 280-192630

Method: 8260B

Preparation: 5030B

Lab Sample ID: LCS 280-192630/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/23/2013 0944
 Prep Date: 09/23/2013 0944
 Leach Date: N/A

Analysis Batch: 280-192630
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R2
 Lab File ID: RR5681.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	5.00	4.61	92	74 - 135	
Bromodichloromethane	5.00	4.31	86	73 - 135	
Carbon tetrachloride	5.00	4.45	89	67 - 135	
Chlorobenzene	5.00	4.57	91	76 - 135	
Chloroform	5.00	4.59	92	76 - 120	
1,3-Dichlorobenzene	5.00	4.75	95	74 - 135	
1,1-Dichloroethane	5.00	4.80	96	75 - 135	
trans-1,2-Dichloroethene	5.00	4.79	96	75 - 135	
1,1-Dichloroethene	5.00	4.49	90	71 - 136	
1,2-Dichloropropane	5.00	4.58	92	71 - 120	
Ethylbenzene	5.00	4.76	95	72 - 120	
Methylene Chloride	5.00	4.40	88	54 - 141	
Tetrachloroethene	5.00	4.52	90	70 - 135	
Toluene	5.00	4.60	92	73 - 120	
1,1,1-Trichloroethane	5.00	4.48	90	70 - 135	
Trichloroethene	5.00	4.49	90	73 - 135	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		89		70 - 127	
Toluene-d8 (Surr)		95		80 - 125	
4-Bromofluorobenzene (Surr)		99		78 - 120	
Dibromofluoromethane (Surr)		101		77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192630**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46671-1	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: RR5684.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1201		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1201		
Leach Date: N/A		

MSD Lab Sample ID: 280-46671-1	Analysis Batch: 280-192630	Instrument ID: VMS_R2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: RR5685.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/23/2013 1224		Final Weight/Volume: 20 mL
Prep Date: 09/23/2013 1224		
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	96	89	74 - 135	7	20		
Bromodichloromethane	89	82	73 - 135	8	20		
Carbon tetrachloride	92	88	67 - 135	4	21		
Chlorobenzene	90	88	76 - 135	3	20		
Chloroform	91	87	76 - 120	5	20		
1,3-Dichlorobenzene	92	87	74 - 135	5	20		
1,1-Dichloroethane	97	92	75 - 135	6	21		
trans-1,2-Dichloroethene	99	96	75 - 135	2	24		
1,1-Dichloroethene	97	92	71 - 136	5	20		
1,2-Dichloropropane	96	89	71 - 120	8	20		
Ethylbenzene	95	90	72 - 120	6	26		
Methylene Chloride	95	89	54 - 141	7	20		
Tetrachloroethene	92	89	70 - 135	3	20		
Toluene	93	89	73 - 120	5	20		
1,1,1-Trichloroethane	93	88	70 - 135	6	20		
Trichloroethene	94	93	73 - 135	1	20		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		93	83			70 - 127	
Toluene-d8 (Surr)		93	85			80 - 125	
4-Bromofluorobenzene (Surr)		97	91			78 - 120	
Dibromofluoromethane (Surr)		104	94			77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192630**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46671-1 Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/23/2013 1201
Prep Date: 09/23/2013 1201
Leach Date: N/A

MSD Lab Sample ID: 280-46671-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/23/2013 1224
Prep Date: 09/23/2013 1224
Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Benzene	0.16	U	5.00	5.00	4.78	4.47
Bromodichloromethane	0.17	U	5.00	5.00	4.44	4.08
Carbon tetrachloride	0.19	U	5.00	5.00	4.58	4.41
Chlorobenzene	0.17	U	5.00	5.00	4.52	4.39
Chloroform	0.16	U	5.00	5.00	4.56	4.35
1,3-Dichlorobenzene	0.13	U	5.00	5.00	4.59	4.35
1,1-Dichloroethane	0.22	U	5.00	5.00	4.85	4.58
trans-1,2-Dichloroethene	0.15	U	5.00	5.00	4.93	4.81
1,1-Dichloroethene	0.23	U	5.00	5.00	4.83	4.60
1,2-Dichloropropane	0.18	U	5.00	5.00	4.78	4.43
Ethylbenzene	0.16	U	5.00	5.00	4.75	4.48
Methylene Chloride	0.32	U	5.00	5.00	4.76	4.44
Tetrachloroethene	0.20	U	5.00	5.00	4.58	4.45
Toluene	0.17	U	5.00	5.00	4.67	4.45
1,1,1-Trichloroethane	0.16	U	5.00	5.00	4.64	4.38
Trichloroethene	0.16	U	5.00	5.00	4.68	4.66

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method Blank - Batch: 280-192750

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-192750/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/23/2013 2258
 Prep Date: 09/23/2013 2258
 Leach Date: N/A

Analysis Batch: 280-192750
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R2
 Lab File ID: RR5814.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	1.08		0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Method Blank - Batch: 280-192750

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-192750/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/23/2013 2258
 Prep Date: 09/23/2013 2258
 Leach Date: N/A

Analysis Batch: 280-192750
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R2
 Lab File ID: RR5814.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
n-Propylbenzene	0.16	U	0.16	1.0
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	70 - 127
Toluene-d8 (Surr)	109	80 - 125
4-Bromofluorobenzene (Surr)	115	78 - 120
Dibromofluoromethane (Surr)	112	77 - 120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

Lab Control Sample - Batch: 280-192750

Method: 8260B

Preparation: 5030B

Lab Sample ID: LCS 280-192750/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/23/2013 2321
 Prep Date: 09/23/2013 2321
 Leach Date: N/A

Analysis Batch: 280-192750
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R2
 Lab File ID: RR5815.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	5.00	4.62	92	74 - 135	
Bromodichloromethane	5.00	3.97	79	73 - 135	
Carbon tetrachloride	5.00	4.25	85	67 - 135	
Chlorobenzene	5.00	4.43	89	76 - 135	
Chloroform	5.00	4.31	86	76 - 120	
1,3-Dichlorobenzene	5.00	4.48	90	74 - 135	
1,1-Dichloroethane	5.00	4.48	90	75 - 135	
trans-1,2-Dichloroethene	5.00	4.71	94	75 - 135	
1,1-Dichloroethene	5.00	4.31	86	71 - 136	
1,2-Dichloropropane	5.00	4.49	90	71 - 120	
Ethylbenzene	5.00	4.54	91	72 - 120	
Methylene Chloride	5.00	5.28	106	54 - 141	
Tetrachloroethene	5.00	4.70	94	70 - 135	
Toluene	5.00	4.49	90	73 - 120	
1,1,1-Trichloroethane	5.00	4.50	90	70 - 135	
Trichloroethene	5.00	4.55	91	73 - 135	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		81		70 - 127	
Toluene-d8 (Surr)		93		80 - 125	
4-Bromofluorobenzene (Surr)		79		78 - 120	
Dibromofluoromethane (Surr)		94		77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192750**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46737-D-1 MS	Analysis Batch: 280-192750	Instrument ID: VMS_R2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: RR5819.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/24/2013 0053		Final Weight/Volume: 20 mL
Prep Date: 09/24/2013 0053		
Leach Date: N/A		

MSD Lab Sample ID: 280-46737-D-1 MSD	Analysis Batch: 280-192750	Instrument ID: VMS_R2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: RR5820.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/24/2013 0115		Final Weight/Volume: 20 mL
Prep Date: 09/24/2013 0115		
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	106	94	74 - 135	12	20		
Bromodichloromethane	87	80	73 - 135	9	20		
Carbon tetrachloride	90	79	67 - 135	13	21		
Chlorobenzene	99	89	76 - 135	10	20		
Chloroform	98	84	76 - 120	16	20		
1,3-Dichlorobenzene	98	88	74 - 135	10	20		
1,1-Dichloroethane	105	92	75 - 135	14	21		
trans-1,2-Dichloroethene	108	97	75 - 135	11	24		
1,1-Dichloroethene	109	91	71 - 136	19	20		
1,2-Dichloropropane	105	90	71 - 120	16	20		
Ethylbenzene	103	93	72 - 120	10	26		
Methylene Chloride	103	87	54 - 141	17	20		
Tetrachloroethene	99	91	70 - 135	8	20		
Toluene	100	90	73 - 120	10	20		
1,1,1-Trichloroethane	95	82	70 - 135	14	20		
Trichloroethene	99	87	73 - 135	13	20		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		89	80			70 - 127	
Toluene-d8 (Surr)		103	95			80 - 125	
4-Bromofluorobenzene (Surr)		102	97			78 - 120	
Dibromofluoromethane (Surr)		106	93			77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192750**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46737-D-1 MS Units: ug/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/24/2013 0053
 Prep Date: 09/24/2013 0053
 Leach Date: N/A

MSD Lab Sample ID: 280-46737-D-1 MSD
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/24/2013 0115
 Prep Date: 09/24/2013 0115
 Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Benzene	0.16	U	5.00	5.00	5.31	4.70
Bromodichloromethane	0.17	U	5.00	5.00	4.37	3.98
Carbon tetrachloride	0.19	U	5.00	5.00	4.50	3.97
Chlorobenzene	0.17	U	5.00	5.00	4.94	4.46
Chloroform	0.16	U	5.00	5.00	4.92	4.20
1,3-Dichlorobenzene	0.13	U	5.00	5.00	4.89	4.42
1,1-Dichloroethane	0.22	U	5.00	5.00	5.27	4.58
trans-1,2-Dichloroethene	0.15	U	5.00	5.00	5.40	4.84
1,1-Dichloroethene	0.23	U	5.00	5.00	5.46	4.54
1,2-Dichloropropane	0.18	U	5.00	5.00	5.27	4.50
Ethylbenzene	0.16	U	5.00	5.00	5.16	4.65
Methylene Chloride	0.32	U	5.00	5.00	5.15	4.36
Tetrachloroethene	0.20	U	5.00	5.00	4.94	4.55
Toluene	0.17	U	5.00	5.00	5.01	4.51
1,1,1-Trichloroethane	0.16	U	5.00	5.00	4.73	4.10
Trichloroethene	0.16	U	5.00	5.00	4.94	4.35

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46671-1

Sdg Number: 13085583

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-192399					
LCS 280-192399/4	Lab Control Sample	T	Water	8260B	
MB 280-192399/5	Method Blank	T	Water	8260B	
280-46603-E-16 MS	Matrix Spike	T	Water	8260B	
280-46603-E-16 MSD	Matrix Spike Duplicate	T	Water	8260B	
280-46671-2	PIN20-0503	T	Water	8260B	
Analysis Batch:280-192630					
LCS 280-192630/4	Lab Control Sample	T	Water	8260B	
MB 280-192630/5	Method Blank	T	Water	8260B	
280-46671-1	PIN20-0502	T	Water	8260B	
280-46671-1MS	Matrix Spike	T	Water	8260B	
280-46671-1MSD	Matrix Spike Duplicate	T	Water	8260B	
280-46671-3	PIN99-2456	T	Water	8260B	
280-46671-4	PIN20-M001	T	Water	8260B	
280-46671-5	PIN20-M003	T	Water	8260B	
280-46671-6	PIN20-M005	T	Water	8260B	
280-46671-7	PIN20-M015	T	Water	8260B	
280-46671-8	PIN20-M053	T	Water	8260B	
280-46671-9	PIN20-M056	T	Water	8260B	
280-46671-10	PIN20-M057	T	Water	8260B	
280-46671-11	PIN20-M058	T	Water	8260B	
280-46671-12	PIN20-M059	T	Water	8260B	
280-46671-13	PIN20-M065	T	Water	8260B	
280-46671-14	PIN20-M066	T	Water	8260B	
280-46671-15	PIN20-M067	T	Water	8260B	
280-46671-16	PIN20-M068	T	Water	8260B	
280-46671-17	PIN20-M069	T	Water	8260B	
Analysis Batch:280-192750					
LCS 280-192750/4	Lab Control Sample	T	Water	8260B	
MB 280-192750/5	Method Blank	T	Water	8260B	
280-46671-12DL	PIN20-M059	T	Water	8260B	
280-46671-18	PIN20-M18D	T	Water	8260B	
280-46737-D-1 MS	Matrix Spike	T	Water	8260B	
280-46737-D-1 MSD	Matrix Spike Duplicate	T	Water	8260B	

Report Basis

T = Total

ANALYTICAL REPORT

Job Number: 280-46968-1

SDG Number: 13085583

Job Description: PINELLAS MONITORING

For:

S.M. Stoller Corporation
2597 Legacy Way
Grand Junction, CO 81503
Attention: Mr. Steve Donovan



Approved for release.
Kae E Yoder
Project Manager II
10/9/2013 11:47 AM

Kae E Yoder, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0190
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10/09/2013

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



Pages have been deleted from this laboratory report file to reduce file size. The deleted pages contain raw data and instrument calibrations. If the full laboratory report is needed, contact Scott.Surovchak@lm.doe.gov

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CASE NARRATIVE

Client: S.M. Stoller Corporation

Project: PINELLAS MONITORING - 13085583

Report Number: 280-46968-1

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

Results between the method detection limit (MDL) and reporting limit (RL) are flagged with a "J" qualifier to indicate an estimated value. These results are statistically less reliable than results greater than or equal to the RL and should be considered a qualitative value.

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

RECEIPT

The samples were received on 9/20/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.4° C and 0.7° C.

TestAmerica Denver subcontracted the TRPH 1664A (LMW-02) analysis to TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, 716-691-2600.

GC/MS VOLATILES - SW846 8260B

No anomalies were encountered.

TOTAL METALS - SW846 6010B - Sodium

No anomalies were encountered.

SGT-HEM (TRPH) - EPA 1664A

The SGT-HEM (TRPH) analysis presented in this report was performed at the TestAmerica Buffalo facility.

Due to insufficient sample volume submitted by the client, Rocky Flats sample specific Matrix Spike analysis could not be performed. Standard batch Matrix Spike data have been provided.

No anomalies were encountered.

SULFATE - SW846 9056A

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Lab Section	Qualifier	Description
GC/MS VOA	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

SAMPLE SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-46968-1	PIN20-2519	Water	09/19/2013 1200	09/20/2013 0900
280-46968-2	PIN99-2522	Water	09/19/2013 0800	09/20/2013 0900
280-46968-3	PIN20-M38D	Water	09/19/2013 1216	09/20/2013 0900
280-46968-4	PIN20-M035	Water	09/19/2013 1115	09/20/2013 0900
280-46968-4MS	PIN20-M035	Water	09/19/2013 1115	09/20/2013 0900
280-46968-4MSD	PIN20-M035	Water	09/19/2013 1115	09/20/2013 0900

EXECUTIVE SUMMARY - Detections

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-46968-1	PIN20-2519					
Acetone		18		10	ug/L	8260B
2-Butanone (MEK)		2.4	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		3.1		1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.46	J	1.0	ug/L	8260B
Vinyl chloride		0.86	J	1.0	ug/L	8260B
280-46968-2	PIN99-2522					
Methylene Chloride		1.0		1.0	ug/L	8260B
280-46968-4	PIN20-M035					
Acetone		18		10	ug/L	8260B
2-Butanone (MEK)		2.3	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		3.1		1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.46	J	1.0	ug/L	8260B
Vinyl chloride		0.79	J	1.0	ug/L	8260B
Sodium		37000		1000	ug/L	6010B
SGT-HEM (TRPH)		9.1		4.9	mg/L	1664A
Sulfate		23		5.0	mg/L	9056A

METHOD SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Total Metals	TAL DEN		SW846 3010A
Anions, Ion Chromatography	TAL DEN	SW846 9056A	
SGT-HEM (TRPH)	TAL BUF	EPA 1664A	
HEM and SGT-HEM (SPE)	TAL BUF		1664A 1664A

Lab References:

TAL BUF = TestAmerica Buffalo

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Method	Analyst	Analyst ID
SW846 8260B	Wickham, Tom A	TAW
SW846 6010B	Harre, John K	JKH
EPA 1664A	Wolfe, Larry A	LAW
SW846 9056A	Phan, Thu L	TLP

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Client Sample ID: PIN20-2519

Lab Sample ID: 280-46968-1

Date Sampled: 09/19/2013 1200

Client Matrix: Water

Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-193638	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R8883.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/30/2013 1323			Final Weight/Volume:	20 mL
Prep Date:	09/30/2013 1323				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	18		1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.4	J	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	3.1		0.15	1.0
trans-1,2-Dichloroethene	0.46	J	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Client Sample ID: PIN20-2519

Lab Sample ID: 280-46968-1

Date Sampled: 09/19/2013 1200

Client Matrix: Water

Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-193638	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R8883.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/30/2013 1323			Final Weight/Volume:	20 mL
Prep Date:	09/30/2013 1323				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.86	J	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 127
Toluene-d8 (Surr)	93		80 - 125
4-Bromofluorobenzene (Surr)	93		78 - 120
Dibromofluoromethane (Surr)	104		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Client Sample ID: PIN99-2522

Lab Sample ID: 280-46968-2

Date Sampled: 09/19/2013 0800

Client Matrix: Water

Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-193638	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R8884.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/30/2013 1344			Final Weight/Volume:	20 mL
Prep Date:	09/30/2013 1344				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	1.0		0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Client Sample ID: PIN99-2522

Lab Sample ID: 280-46968-2
Client Matrix: Water

Date Sampled: 09/19/2013 0800
Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-193638	Instrument ID: VMS_R1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: R8884.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/30/2013 1344		Final Weight/Volume: 20 mL
Prep Date: 09/30/2013 1344		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
Toluene-d8 (Surr)	95		80 - 125
4-Bromofluorobenzene (Surr)	92		78 - 120
Dibromofluoromethane (Surr)	103		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Client Sample ID: PIN20-M38D

Lab Sample ID: 280-46968-3

Date Sampled: 09/19/2013 1216

Client Matrix: Water

Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-193638	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R8885.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/30/2013 1405			Final Weight/Volume:	20 mL
Prep Date:	09/30/2013 1405				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Client Sample ID: PIN20-M38D

Lab Sample ID: 280-46968-3
Client Matrix: Water

Date Sampled: 09/19/2013 1216
Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-193638	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R8885.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/30/2013 1405			Final Weight/Volume:	20 mL
Prep Date:	09/30/2013 1405				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		70 - 127
Toluene-d8 (Surr)	97		80 - 125
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	108		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Client Sample ID: PIN20-M035

Lab Sample ID: 280-46968-4

Date Sampled: 09/19/2013 1115

Client Matrix: Water

Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-193638	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R8880.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	09/30/2013 1218			Final Weight/Volume:	20 mL
Prep Date:	09/30/2013 1218				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	18		1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.3	J	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	3.1		0.15	1.0
trans-1,2-Dichloroethene	0.46	J	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0
n-Propylbenzene	0.16	U	0.16	1.0

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Client Sample ID: PIN20-M035

Lab Sample ID: 280-46968-4
Client Matrix: Water

Date Sampled: 09/19/2013 1115
Date Received: 09/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-193638	Instrument ID: VMS_R1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: R8880.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 09/30/2013 1218		Final Weight/Volume: 20 mL
Prep Date: 09/30/2013 1218		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.79	J	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 127
Toluene-d8 (Surr)	95		80 - 125
4-Bromofluorobenzene (Surr)	96		78 - 120
Dibromofluoromethane (Surr)	109		77 - 120

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Client Sample ID: PIN20-M035

Lab Sample ID: 280-46968-4
Client Matrix: Water

Date Sampled: 09/19/2013 1115
Date Received: 09/20/2013 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-193217	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-192818	Lab File ID:	25A3092513.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/25/2013 2131			Final Weight/Volume:	50 mL
Prep Date:	09/24/2013 0940				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Sodium	37000		92	1000

Analytical Data

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

General Chemistry

Client Sample ID: PIN20-M035

Lab Sample ID: 280-46968-4

Date Sampled: 09/19/2013 1115

Client Matrix: Water

Date Received: 09/20/2013 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
SGT-HEM (TRPH)	9.1		mg/L	1.9	4.9	1.0	1664A
	Analysis Batch: 480-141957	Analysis Date: 10/01/2013 0123					
	Prep Batch: 480-141955	Prep Date: 10/01/2013 0050					
Sulfate	23		mg/L	0.23	5.0	1.0	9056A
	Analysis Batch: 280-194809	Analysis Date: 10/05/2013 0503					

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-46968-1	PIN20-2519	104	105	93	93
280-46968-2	PIN99-2522	103	102	95	92
280-46968-3	PIN20-M38D	108	111	97	100
280-46968-4	PIN20-M035	109	109	95	96
MB 280-193638/5		94	100	85	90
LCS 280-193638/4		91	94	89	78
280-46968-4 MS	PIN20-M035 MS	98	104	89	79
280-46968-4 MSD	PIN20-M035 MSD	107	115	96	87

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	77-120
DCA = 1,2-Dichloroethane-d4 (Surr)	70-127
TOL = Toluene-d8 (Surr)	80-125
BFB = 4-Bromofluorobenzene (Surr)	78-120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Method Blank - Batch: 280-193638

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-193638/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/30/2013 1007
 Prep Date: 09/30/2013 1007
 Leach Date: N/A

Analysis Batch: 280-193638
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R1
 Lab File ID: R8875.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromochloromethane	0.10	U	0.10	1.0
Bromodichloromethane	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	1.0
2-Butanone (MEK)	2.0	U	2.0	5.0
n-Butylbenzene	0.32	U	0.32	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Carbon disulfide	0.45	U	0.45	1.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Dibromochloromethane	0.17	U	0.17	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	1.0
Dibromomethane	0.17	U	0.17	1.0
1,2-Dichlorobenzene	0.15	U	0.15	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
Dichlorodifluoromethane	0.31	U	0.31	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
1,3-Dichloropropane	0.22	U	0.22	1.0
2,2-Dichloropropane	0.18	U	0.18	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
Ethylbenzene	0.16	U	0.16	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
2-Hexanone	1.7	U	1.7	5.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.20	U	0.20	1.0
Methylene Chloride	0.32	U	0.32	1.0
4-Methyl-2-pentanone	0.98	U	0.98	5.0
Naphthalene	0.22	U	0.22	1.0

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Method Blank - Batch: 280-193638

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 280-193638/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/30/2013 1007
 Prep Date: 09/30/2013 1007
 Leach Date: N/A

Analysis Batch: 280-193638
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_R1
 Lab File ID: R8875.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	RL
n-Propylbenzene	0.16	U	0.16	1.0
Styrene	0.17	U	0.17	1.0
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,2,2-Tetrachloroethane	0.21	U	0.21	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
1,2,3-Trichlorobenzene	0.21	U	0.21	1.0
1,2,4-Trichlorobenzene	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	1.0
1,2,3-Trichloropropane	0.33	U	0.33	1.0
1,2,4-Trimethylbenzene	0.15	U	0.15	1.0
1,3,5-Trimethylbenzene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	1.0
1,2-Dibromoethane	0.18	U	0.18	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	70 - 127
Toluene-d8 (Surr)	85	80 - 125
4-Bromofluorobenzene (Surr)	90	78 - 120
Dibromofluoromethane (Surr)	94	77 - 120

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Lab Control Sample - Batch: 280-193638

Method: 8260B

Preparation: 5030B

Lab Sample ID: LCS 280-193638/4	Analysis Batch: 280-193638	Instrument ID: VMS_R1
Client Matrix: Water	Prep Batch: N/A	Lab File ID: R8876.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/30/2013 1034	Units: ug/L	Final Weight/Volume: 20 mL
Prep Date: 09/30/2013 1034		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	5.00	4.57	91	74 - 135	
Bromodichloromethane	5.00	4.52	90	73 - 135	
Carbon tetrachloride	5.00	4.72	94	67 - 135	
Chlorobenzene	5.00	4.45	89	76 - 135	
Chloroform	5.00	4.81	96	76 - 120	
1,3-Dichlorobenzene	5.00	4.31	86	74 - 135	
1,1-Dichloroethane	5.00	4.95	99	75 - 135	
trans-1,2-Dichloroethene	5.00	4.58	92	75 - 135	
1,1-Dichloroethene	5.00	4.59	92	71 - 136	
1,2-Dichloropropane	5.00	4.72	94	71 - 120	
Ethylbenzene	5.00	4.47	89	72 - 120	
Methylene Chloride	5.00	5.03	101	54 - 141	
Tetrachloroethene	5.00	4.41	88	70 - 135	
Toluene	5.00	4.83	97	73 - 120	
1,1,1-Trichloroethane	5.00	4.82	96	70 - 135	
Trichloroethene	5.00	4.33	87	73 - 135	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		94		70 - 127	
Toluene-d8 (Surr)		89		80 - 125	
4-Bromofluorobenzene (Surr)		78		78 - 120	
Dibromofluoromethane (Surr)		91		77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-193638**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46968-4	Analysis Batch: 280-193638	Instrument ID: VMS_R1
Client Matrix: Water	Prep Batch: N/A	Lab File ID: R8881.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/30/2013 1239		Final Weight/Volume: 20 mL
Prep Date: 09/30/2013 1239		
Leach Date: N/A		

MSD Lab Sample ID: 280-46968-4	Analysis Batch: 280-193638	Instrument ID: VMS_R1
Client Matrix: Water	Prep Batch: N/A	Lab File ID: R8882.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 09/30/2013 1302		Final Weight/Volume: 20 mL
Prep Date: 09/30/2013 1302		
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	94	100	74 - 135	6	20		
Bromodichloromethane	98	108	73 - 135	10	20		
Carbon tetrachloride	105	105	67 - 135	0	21		
Chlorobenzene	89	97	76 - 135	8	20		
Chloroform	100	106	76 - 120	6	20		
1,3-Dichlorobenzene	86	92	74 - 135	6	20		
1,1-Dichloroethane	102	108	75 - 135	6	21		
trans-1,2-Dichloroethene	95	102	75 - 135	6	24		
1,1-Dichloroethene	96	100	71 - 136	4	20		
1,2-Dichloropropane	98	108	71 - 120	9	20		
Ethylbenzene	89	93	72 - 120	4	26		
Methylene Chloride	91	103	54 - 141	13	20		
Tetrachloroethene	89	92	70 - 135	3	20		
Toluene	100	104	73 - 120	4	20		
1,1,1-Trichloroethane	103	105	70 - 135	2	20		
Trichloroethene	94	97	73 - 135	3	20		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		104	115			70 - 127	
Toluene-d8 (Surr)		89	96			80 - 125	
4-Bromofluorobenzene (Surr)		79	87			78 - 120	
Dibromofluoromethane (Surr)		98	107			77 - 120	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-193638**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-46968-4 Units: ug/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/30/2013 1239
 Prep Date: 09/30/2013 1239
 Leach Date: N/A

MSD Lab Sample ID: 280-46968-4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/30/2013 1302
 Prep Date: 09/30/2013 1302
 Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Benzene	0.16	U	5.00	5.00	4.72	5.00
Bromodichloromethane	0.17	U	5.00	5.00	4.92	5.42
Carbon tetrachloride	0.19	U	5.00	5.00	5.25	5.24
Chlorobenzene	0.17	U	5.00	5.00	4.47	4.84
Chloroform	0.16	U	5.00	5.00	5.02	5.31
1,3-Dichlorobenzene	0.13	U	5.00	5.00	4.32	4.58
1,1-Dichloroethane	0.22	U	5.00	5.00	5.09	5.41
trans-1,2-Dichloroethene	0.46	J	5.00	5.00	5.24	5.55
1,1-Dichloroethene	0.23	U	5.00	5.00	4.82	4.99
1,2-Dichloropropane	0.18	U	5.00	5.00	4.91	5.39
Ethylbenzene	0.16	U	5.00	5.00	4.45	4.65
Methylene Chloride	0.32	U	5.00	5.00	4.53	5.14
Tetrachloroethene	0.20	U	5.00	5.00	4.45	4.60
Toluene	0.17	U	5.00	5.00	5.01	5.22
1,1,1-Trichloroethane	0.16	U	5.00	5.00	5.14	5.26
Trichloroethene	0.16	U	5.00	5.00	4.69	4.84

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Method Blank - Batch: 280-192818

Lab Sample ID: MB 280-192818/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/25/2013 2127
Prep Date: 09/24/2013 0940
Leach Date: N/A

Analysis Batch: 280-193217
Prep Batch: 280-192818
Leach Batch: N/A
Units: ug/L

**Method: 6010B
Preparation: 3010A**

Instrument ID: MT_025
Lab File ID: 25A3092513.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Sodium	92	U	92	1000

Lab Control Sample - Batch: 280-192818

Lab Sample ID: LCS 280-192818/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/25/2013 2129
Prep Date: 09/24/2013 0940
Leach Date: N/A

Analysis Batch: 280-193217
Prep Batch: 280-192818
Leach Batch: N/A
Units: ug/L

**Method: 6010B
Preparation: 3010A**

Instrument ID: MT_025
Lab File ID: 25A3092513.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sodium	50000	51500	103	90 - 115	

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192818**

MS Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/25/2013 2136
Prep Date: 09/24/2013 0940
Leach Date: N/A

Analysis Batch: 280-193217
Prep Batch: 280-192818
Leach Batch: N/A

**Method: 6010B
Preparation: 3010A**

Instrument ID: MT_025
Lab File ID: 25A3092513.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/25/2013 2138
Prep Date: 09/24/2013 0940
Leach Date: N/A

Analysis Batch: 280-193217
Prep Batch: 280-192818
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25A3092513.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Sodium	101	100	70 - 203	0	20		

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-192818**

**Method: 6010B
Preparation: 3010A**

MS Lab Sample ID: 280-46968-4 Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/25/2013 2136
Prep Date: 09/24/2013 0940
Leach Date: N/A

MSD Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/25/2013 2138
Prep Date: 09/24/2013 0940
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Sodium	37000	50000	50000	87400	87000

Serial Dilution - Batch: 280-192818

**Method: 6010B
Preparation: 3010A**

Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 5.0
Analysis Date: 09/25/2013 2134
Prep Date: 09/24/2013 0940
Leach Date: N/A

Analysis Batch: 280-193217
Prep Batch: 280-192818
Leach Batch: N/A
Units: ug/L

Instrument ID: MT_025
Lab File ID: 25A3092513.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Sodium	37000	36400	0.97	10	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

Method Blank - Batch: 480-141955

Method: 1664A
Preparation: 1664A

Lab Sample ID: MB 480-141955/1-A	Analysis Batch: 480-141957	Instrument ID: No Equipment Assigned
Client Matrix: Water	Prep Batch: 480-141955	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 10/01/2013 0123	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: 10/01/2013 0050		
Leach Date: N/A		

Analyte	Result	Qual	MDL	RL
SGT-HEM (TRPH)	1.9	U	1.9	5.0

Lab Control Sample - Batch: 480-141955

Method: 1664A
Preparation: 1664A

Lab Sample ID: LCS 480-141955/2-A	Analysis Batch: 480-141957	Instrument ID: No Equipment Assigned
Client Matrix: Water	Prep Batch: 480-141955	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 10/01/2013 0123	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: 10/01/2013 0050		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
SGT-HEM (TRPH)	20.0	21.3	106	64 - 132	

Matrix Spike - Batch: 480-141955

Method: 1664A
Preparation: 1664A

Lab Sample ID: 280-46845-B-1-A MS	Analysis Batch: 480-141957	Instrument ID: No Equipment Assigned
Client Matrix: Water	Prep Batch: 480-141955	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1020 mL
Analysis Date: 10/01/2013 0123	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: 10/01/2013 0050		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
SGT-HEM (TRPH)	1.9 U	9.80	9.90	78	64 - 132	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Method Blank - Batch: 280-194809

Method: 9056A
Preparation: N/A

Lab Sample ID:	MB 280-194809/6	Analysis Batch:	280-194809	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	115.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/04/2013 1047	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Sulfate	0.23	U	0.23	5.0

Method Reporting Limit Check - Batch: 280-194809

Method: 9056A
Preparation: N/A

Lab Sample ID:	MRL 280-194809/3	Analysis Batch:	280-194809	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/04/2013 1000	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	1.00	1.14	114	50 - 150	J

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-194809**

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-194809/4	Analysis Batch:	280-194809	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/04/2013 1016	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-194809/5	Analysis Batch:	280-194809	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	114.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/04/2013 1031	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Sulfate	105	104	90 - 110	1	10		

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-194809**

**Method: 9056A
Preparation: N/A**

LCS Lab Sample ID: LCS 280-194809/4 Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 10/04/2013 1016
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-194809/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 10/04/2013 1031
Prep Date: N/A
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Sulfate	25.0	25.0	26.2	26.1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-194809**

**Method: 9056A
Preparation: N/A**

MS Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 10/05/2013 0535
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-194809
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_IC7
Lab File ID: 170.TXT
Initial Weight/Volume:
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 10/05/2013 0550
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-194809
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_IC7
Lab File ID: 171.TXT
Initial Weight/Volume:
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Sulfate	102	101	80 - 120	0	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-194809**

**Method: 9056A
Preparation: N/A**

MS Lab Sample ID: 280-46968-4 Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 10/05/2013 0535
Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-46968-4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 10/05/2013 0550
Prep Date: N/A
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Sulfate	23	25.0	25.0	48.1	47.9

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1
Sdg Number: 13085583

Duplicate - Batch: 280-194809

Method: 9056A
Preparation: N/A

Lab Sample ID:	280-46968-4	Analysis Batch:	280-194809	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	169.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/05/2013 0519	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfate	23	22.4	0.6	15	

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-193638					
LCS 280-193638/4	Lab Control Sample	T	Water	8260B	
MB 280-193638/5	Method Blank	T	Water	8260B	
280-46968-1	PIN20-2519	T	Water	8260B	
280-46968-2	PIN99-2522	T	Water	8260B	
280-46968-3	PIN20-M38D	T	Water	8260B	
280-46968-4	PIN20-M035	T	Water	8260B	
280-46968-4MS	Matrix Spike	T	Water	8260B	
280-46968-4MSD	Matrix Spike Duplicate	T	Water	8260B	
Report Basis					
T = Total					
Metals					
Prep Batch: 280-192818					
LCS 280-192818/2-A	Lab Control Sample	T	Water	3010A	
MB 280-192818/1-A	Method Blank	T	Water	3010A	
280-46968-4	PIN20-M035	T	Water	3010A	
280-46968-4MS	Matrix Spike	T	Water	3010A	
280-46968-4MSD	Matrix Spike Duplicate	T	Water	3010A	
Analysis Batch:280-193217					
LCS 280-192818/2-A	Lab Control Sample	T	Water	6010B	280-192818
MB 280-192818/1-A	Method Blank	T	Water	6010B	280-192818
280-46968-4	PIN20-M035	T	Water	6010B	280-192818
280-46968-4MS	Matrix Spike	T	Water	6010B	280-192818
280-46968-4MSD	Matrix Spike Duplicate	T	Water	6010B	280-192818

Report Basis

T = Total

Quality Control Results

Client: S.M. Stoller Corporation

Job Number: 280-46968-1

Sdg Number: 13085583

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 480-141955					
LCS 480-141955/2-A	Lab Control Sample	T	Water	1664A	
MB 480-141955/1-A	Method Blank	T	Water	1664A	
280-46845-B-1-A MS	Matrix Spike	T	Water	1664A	
280-46968-4	PIN20-M035	T	Water	1664A	
Analysis Batch:480-141957					
LCS 480-141955/2-A	Lab Control Sample	T	Water	1664A	480-141955
MB 480-141955/1-A	Method Blank	T	Water	1664A	480-141955
280-46845-B-1-A MS	Matrix Spike	T	Water	1664A	480-141955
280-46968-4	PIN20-M035	T	Water	1664A	480-141955
Analysis Batch:280-194809					
LCS 280-194809/4	Lab Control Sample	T	Water	9056A	
LCSD 280-194809/5	Lab Control Sample Duplicate	T	Water	9056A	
MB 280-194809/6	Method Blank	T	Water	9056A	
280-46968-4	PIN20-M035	T	Water	9056A	
280-46968-4DU	Duplicate	T	Water	9056A	
280-46968-4MS	Matrix Spike	T	Water	9056A	
280-46968-4MSD	Matrix Spike Duplicate	T	Water	9056A	

Report Basis

T = Total