LMS/PIN/N01884

Pinellas County, Florida, Site Environmental Restoration Project

Semiannual Progress Report for the 4.5 Acre Site

December 2013 Through May 2014

June 2014

U.S. DEPARTMENT OF ENERGY | Legacy Management

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Abbreviations

cDCE	*cis*-1,2-dichloroethene
COPC	contaminant of potential concern
CTL	cleanup target level
DOE	U.S. Department of Energy
FAC	*Florida Administrative Code*
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
tDCE	*trans*-1,2-dichloroethene
VC	vinyl chloride
VOC	volatile organic compound

1.0 Introduction

This *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 STAR Center (Young - Rainey Science, Technology, and Research 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. The S.M. Stoller Corporation, a subsidiary of Huntington Ingalls Industries and 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. 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 drum removal action 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 2003) 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 completed 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 represented a source of contamination to groundwater: TCE, *cis*-1,2-dichloroethene (cDCE), *trans*-1,2-dichloroethene (tDCE), 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 mccartyi* (formerly known as *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 23,000 gallons of diluted 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 (*Florida Administrative Code* Section 62-780.680 [FAC 62-780.680]). 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 FAC Section 62-780.750, "Post Active Remediation Monitoring." That DOE document was approved by FDEP on December 21, 2009. Closure monitoring began with the August/September 2009 sampling event.

This document is the semiannual progress report for the 4.5 Acre Site for December 2013 through May 2014, 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 December 2013 through May 2014 period.

- Conducted semiannual sampling, which consisted of collecting groundwater samples for VOCs analysis from 13 closure monitoring wells during March 5–7, 2014, and measuring water levels in all accessible wells and nearby ponds on March 4.
- 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 March 4, 2014. The depth to water in each well was measured with an electronic water level indicator. The groundwater elevation data are listed in Table 1. Surface water elevations for the West Pond (to the east) and Pond 5 (to the southeast) 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 March 2014, groundwater in the shallow surficial aquifer (Figure 3) generally flowed to the west-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 March 2014. 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 March 2014 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) in samples collected from wells at the 4.5 Acre Site since closure monitoring began in August 2009. Figure 5 shows the total COPCs (TCOPCs) concentrations (the sum of the individual COPCs concentrations) for March 2014.

The COPCs for the 4.5 Acre Site are TCE, cDCE, tDCE, VC, and benzene. The maximum concentration for each COPC in March 2014 is compared to its respective cleanup target level (CTL) in Table 5. TCE was not detected, and cDCE, tDCE, and benzene were detected at concentrations below the regular (drinking water) CTL. Only VC exceeded its CTL; a VC plume map is included as Figure 6.

Monitoring wells PIN20-M035 and -M068 were sampled for analysis of sodium, sulfate, and total recoverable petroleum hydrocarbons to determine the concentration of these parameters following injection of emulsified soybean oil (Table 6). All three parameters were below their respective CTLs in March 2014.

Laboratory reports for samples collected in March 2014 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 March 2014 are listed in Table 7. 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 March 2014 event, 13 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 SEEPro (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

Closure monitoring began at the 4.5 Acre Site in August 2009 and was completed in March 2014. Five of the 13 closure monitoring wells had no COPCs detected during closure monitoring (Table 4; wells M003, M005, M065, M066, and M38D). Trend plots for the eight remaining closure monitoring wells are shown as Figures 7–14. TCE and benzene were detected infrequently during closure monitoring, so only cDCE, tDCE, and VC are shown on these plots.

The 0502/0503 well pair, located in the northern part of the site, was not within the area of influence of the 2010 soybean oil injection event, but was within the area of influence of the 2013 event. As can be seen in Figures 7 and 8, contaminant concentrations decreased significantly after the 2013 injection event and were below the detection limit by March 2014. The locations of the 2010 and 2013 emulsified soybean oil injection events are shown in Figures 15 and 16.

Well pair M001/M067, located in the north central part of the site, was within the area of influence of the 2010 soybean oil injection event. Contaminant concentrations in well M001 decreased significantly after the event and have continued to decrease slightly since (Figure 9). The VC trend in well M067 could be interpreted as a slight increase, but the concentration is very low and changes of a few micrograms per liter are not significant (Figure 10).

Well M015 is located in the northern part of the site and was not within the area of influence of either of the soybean oil injection events. Concentrations of cDCE and VC in this well are low and show a slight increasing trend through March 2013, but a decreasing trend is evident since that time (Figure 11). Groundwater flows to the northwest at a velocity of 2–10 feet/year and this well is about 180 feet from the property boundary in that direction, so it is likely that the low concentration of VC in this well will be significantly diluted (likely to below the 1 µg/L CTL) before it reaches the property boundary.

Well pair M068/M069 is located in the southern part of the site and was within the area of influence of both soybean oil injection events. The VC concentration in well M068 increased after the 2010 injection event, but a decreasing trend is evident following the 2013 injection

event (Figure 12). Contaminant concentrations in well M069 show an overall stable or decreasing trend during closure monitoring (Figure 13).

Well M035 is located offsite to the west and has shown stable or decreasing contaminant concentration trends (Figure 14). The VC concentration in this well was above the 1 microgram per liter (µg/L) CTL from March 2009 to March 2013, but was below the CTL in September 2013 and March 2014. The VC concentration was 0.79 µg/L (0.86 µg/L in a duplicate sample) in September 2013 and 0.71 µg/L (0.74 µg/L in a duplicate sample) in March 2014.

Geochemical parameters measured in the field at the 4.5 Acre Site during March 2014 are listed in Table 3. Conditions are moderately reducing as evidenced by the low values of dissolved oxygen and oxidation-reduction potential, and therefore are favorable for continued contaminant biodegradation.

In summary, the contaminant plume at the 4.5 Acre Site is stable or decreasing as evidenced by generally decreasing contaminant concentration trends. The emulsified soybean oil injected in 2010 and 2013 should remain active for at least 5 years after injection, so biodegradation of contaminants should continue. In the offsite area (well M035), VC has decreased to below the 1 µg/L CTL and has stayed there for a year, so there no longer is an offsite plume.

4.0 Upcoming Tasks

During the June to November 2014 period, DOE plans to submit to FDEP a Site Rehabilitation Completion Report with No Further Action Proposal. This document will conclude that the requirements for site closure under the Risk-Based Corrective Action regulations have been met and that no additional sampling is necessary.

5.0 References

Armstrong, John, 2005. John Armstrong, Florida Department of Environmental Protection, letter to David Ingle, U.S. Department of Energy, July 7.

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DOE (U.S. Department of Energy), 2008a. *4.5 Acre Site Source Removal Feasibility Study*, DOE-LM/1549-2008, Office of Legacy Management, Grand Junction, Colorado, April.

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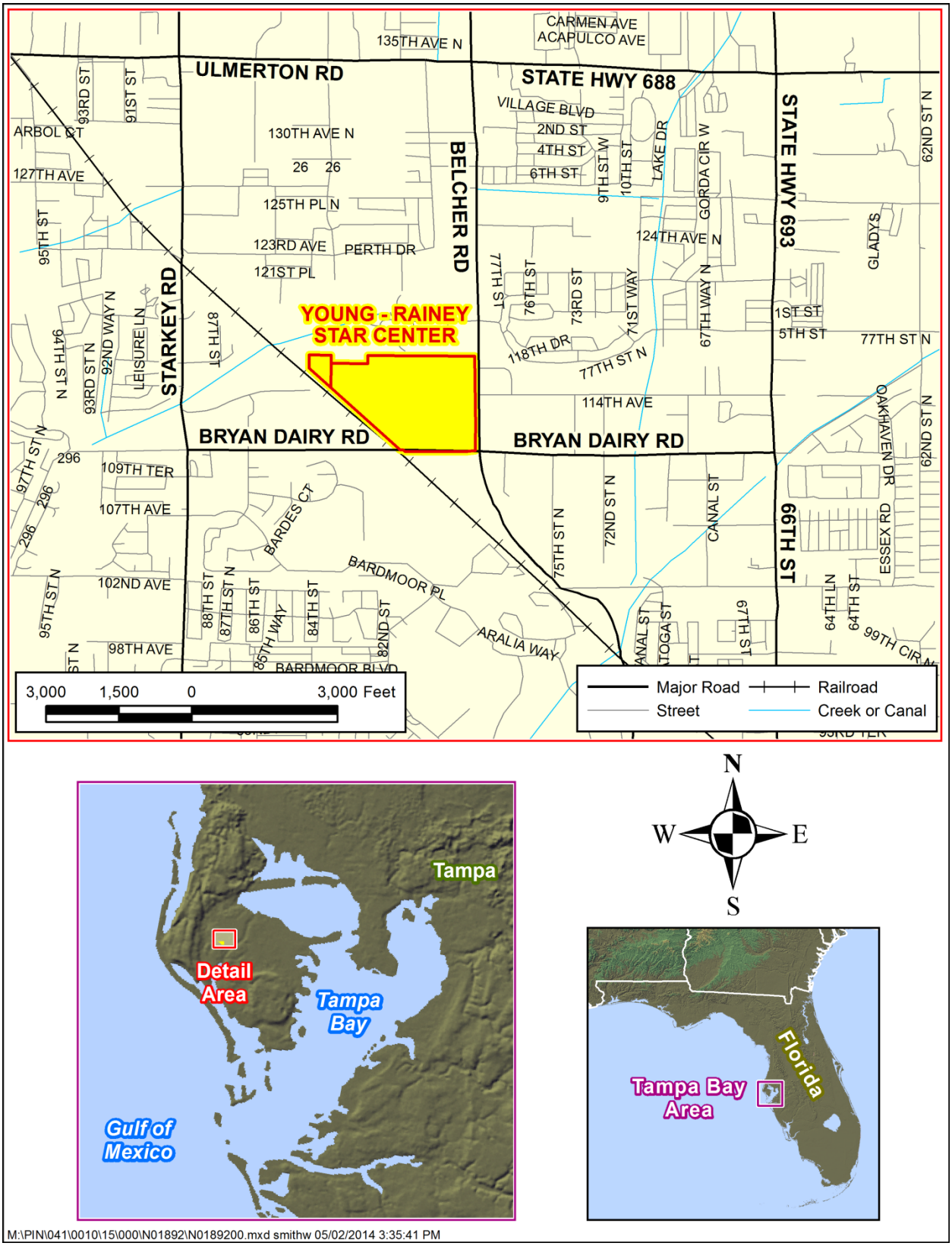

Figure 1. Young - Rainey STAR Center Location

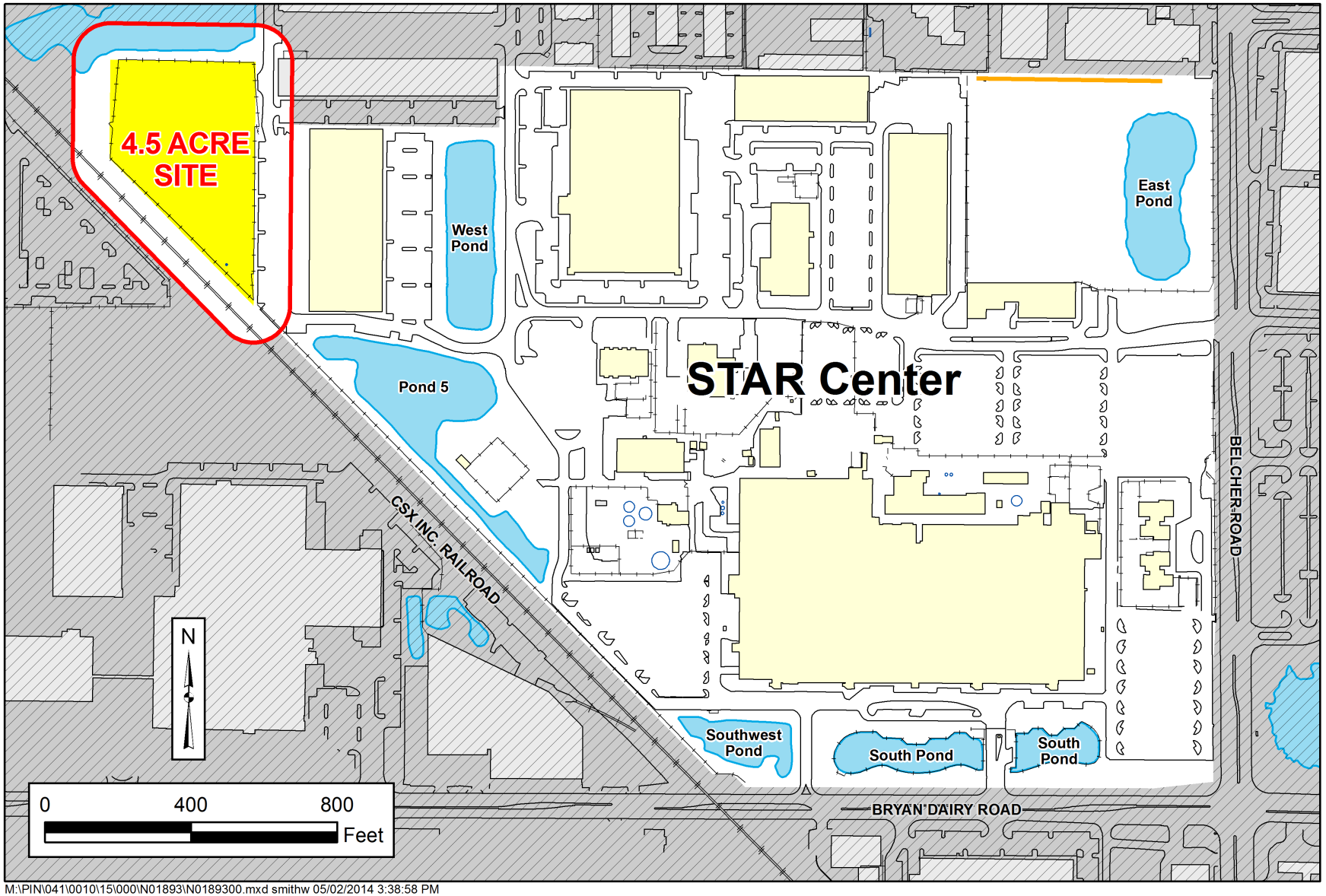

Figure 2. 4.5 Acre Site Location

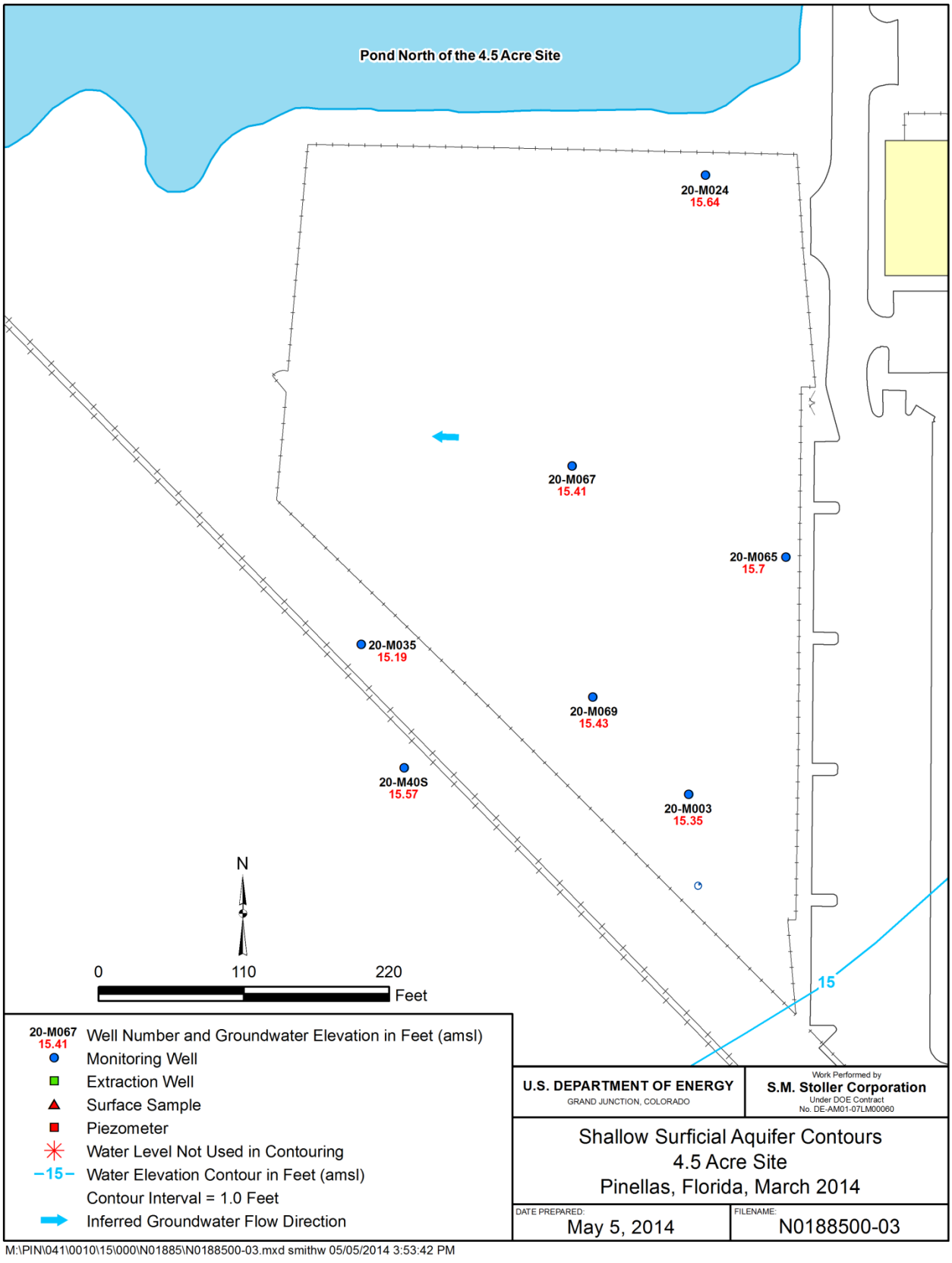

Figure 3. Shallow Surficial Aquifer Flow, March 2014

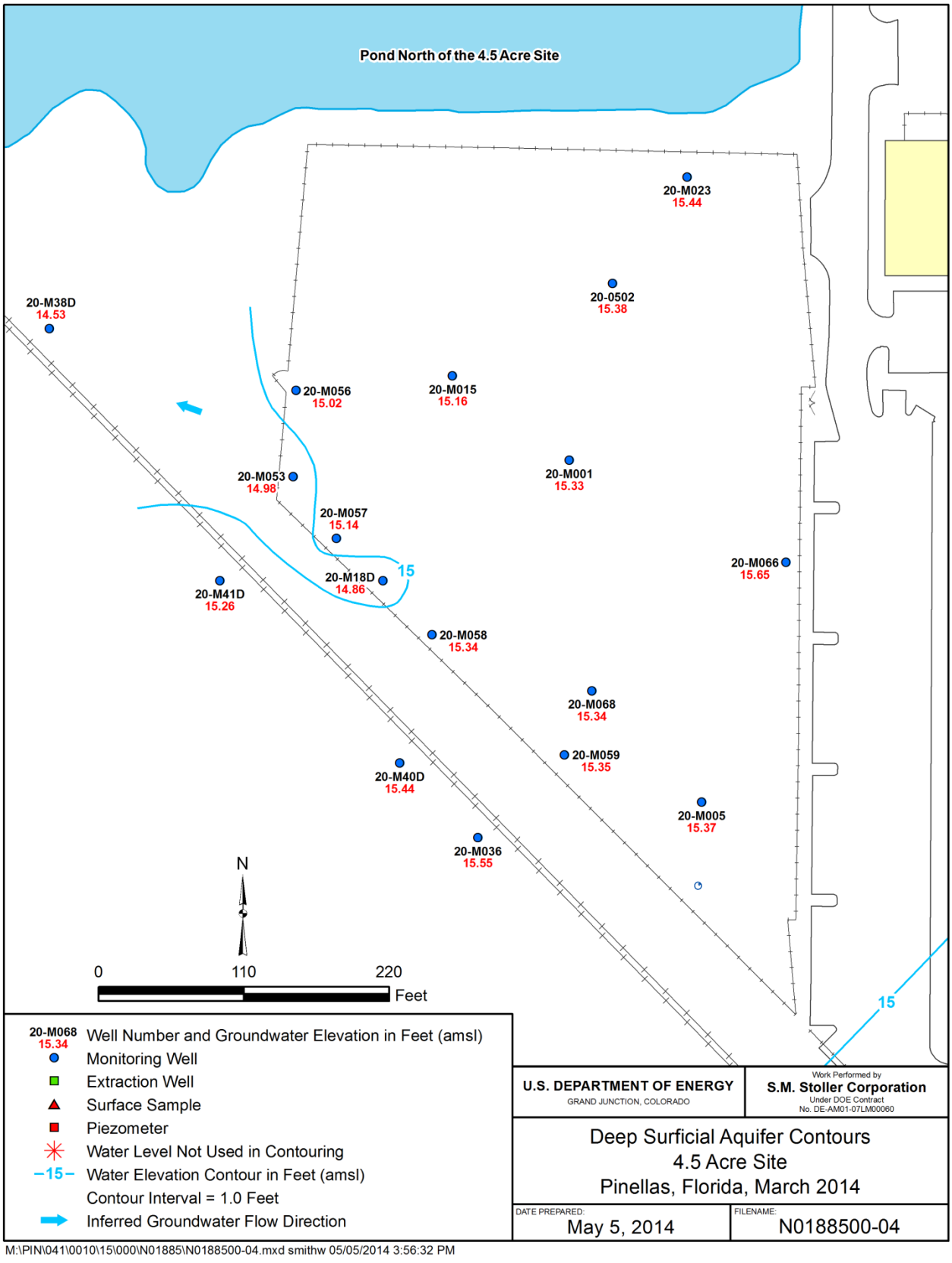

Figure 4. Deep Surficial Aquifer Flow, March 2014

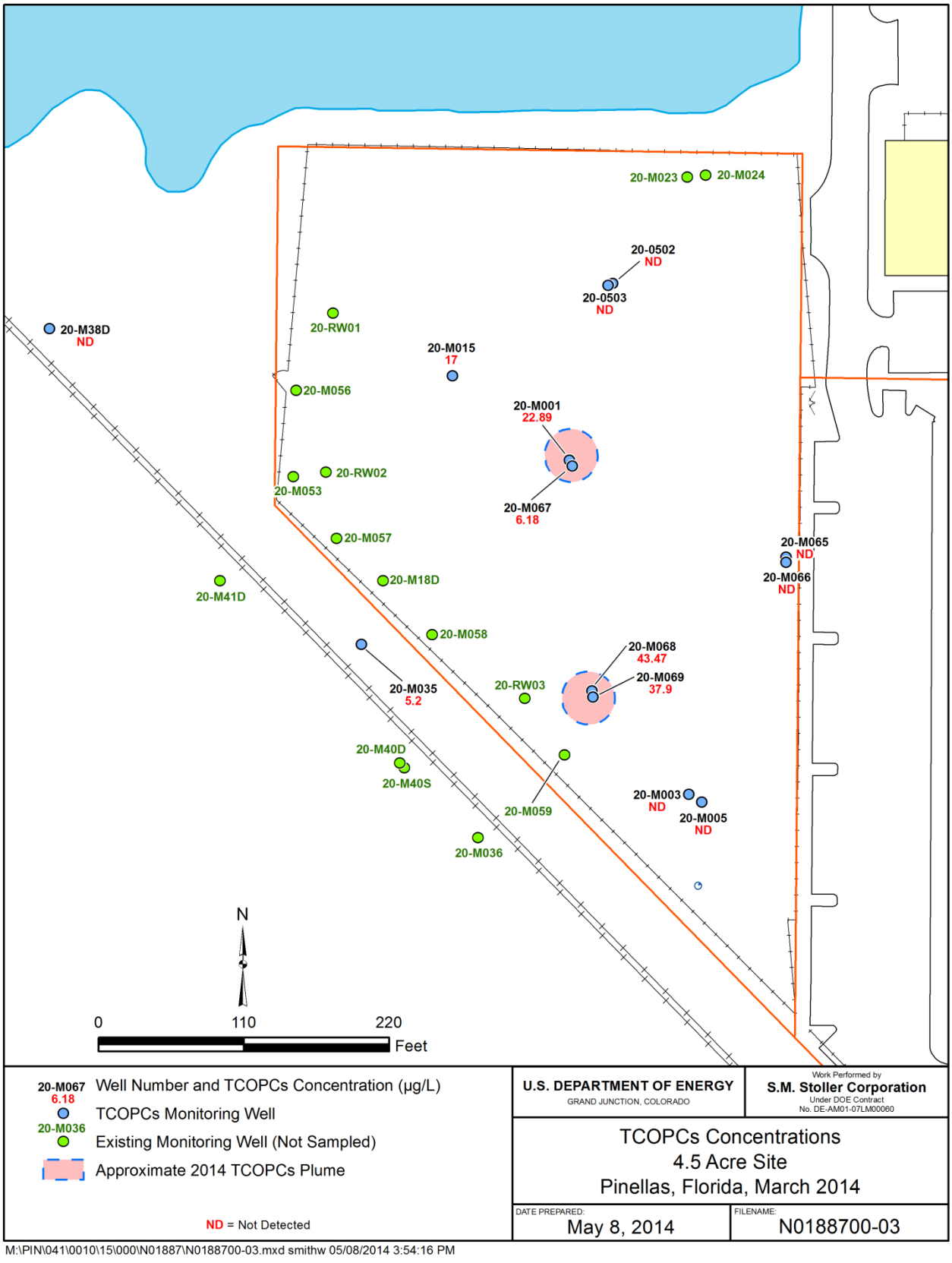

Figure 5. TCOPCs Concentrations, March 2014

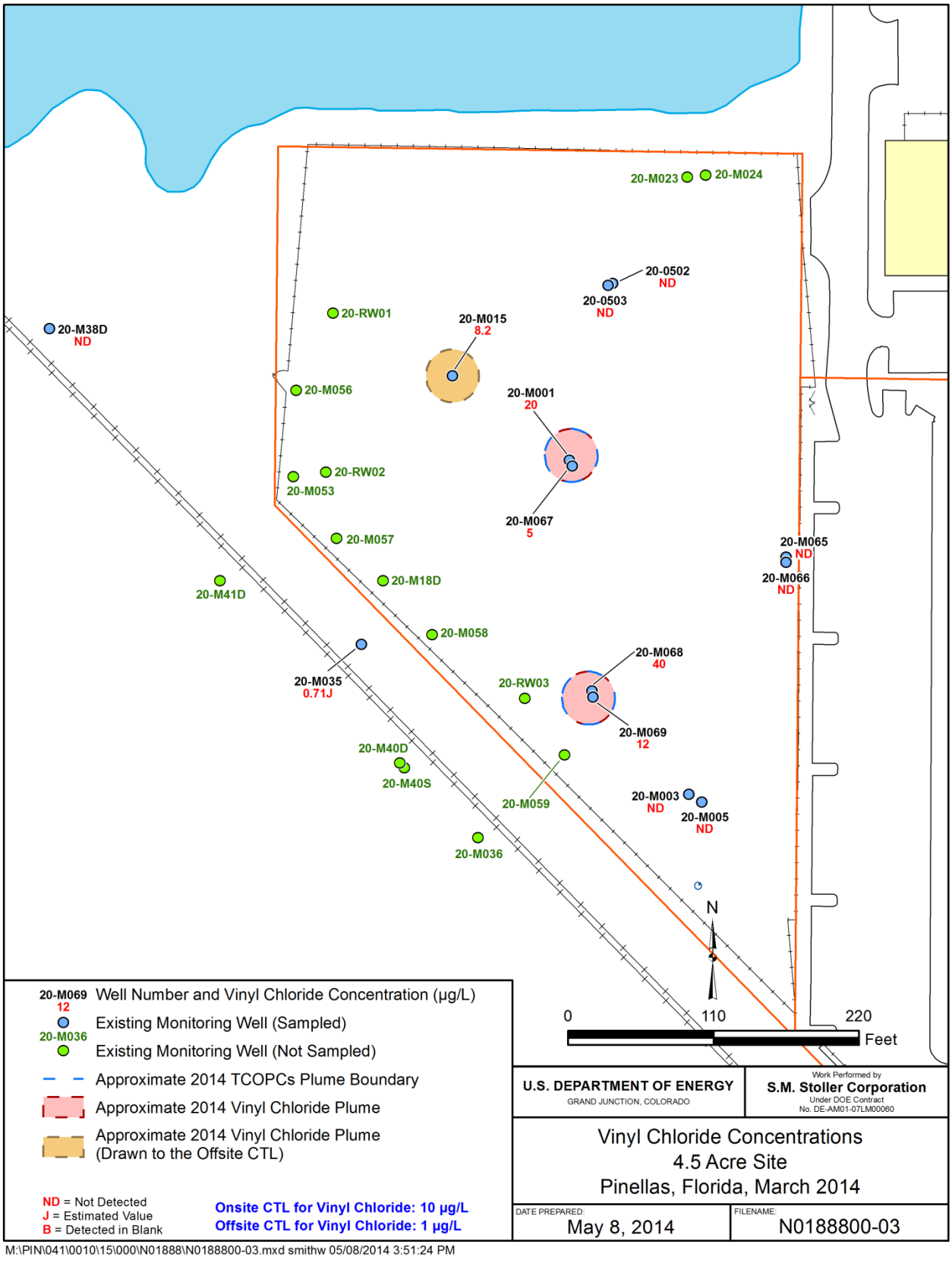

Figure 6. Vinyl Chloride Concentrations, March 2014

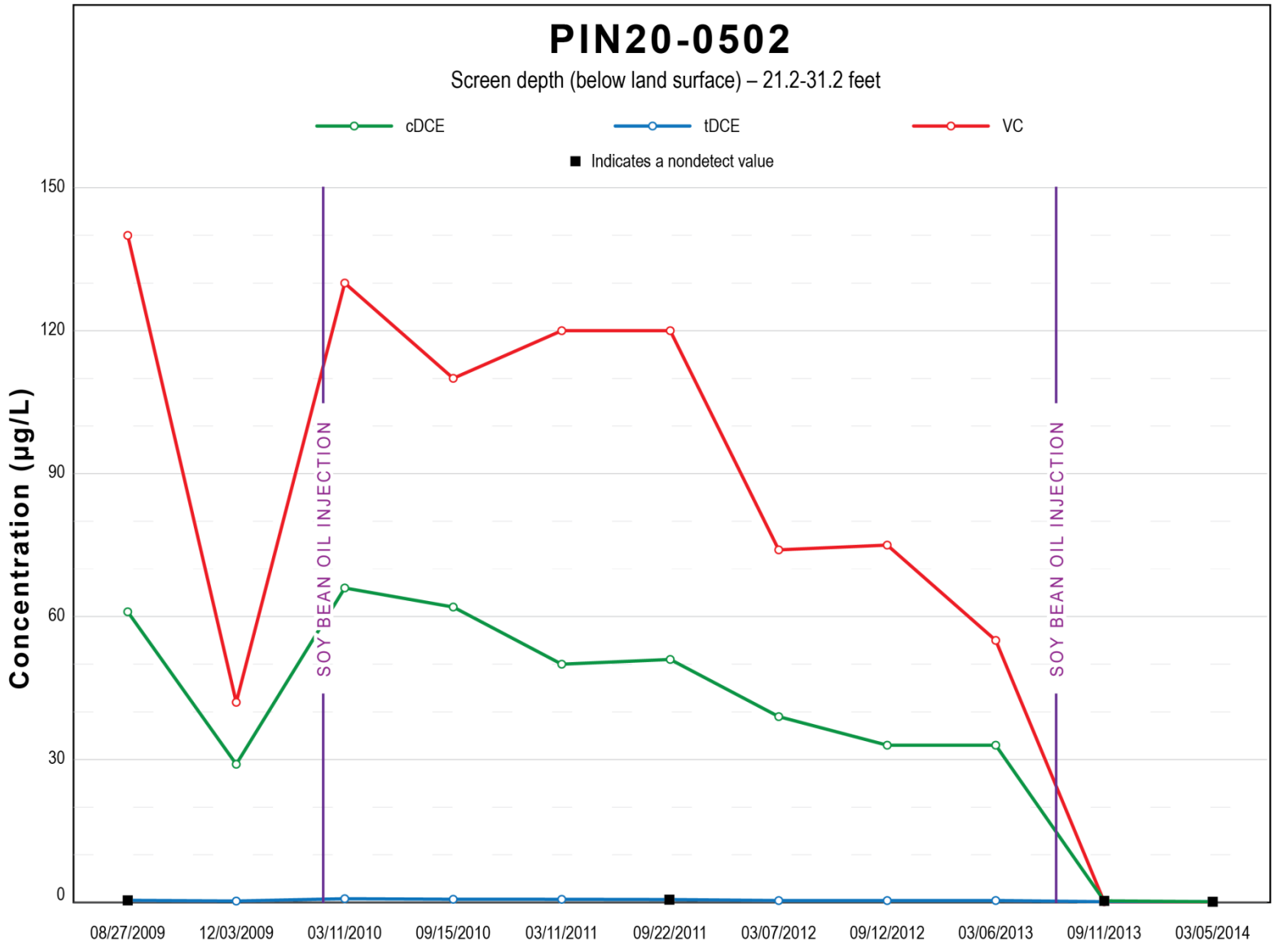

Figure 7. cDCE, tDCE, and VC in Well PIN20-0502, 2009–2014

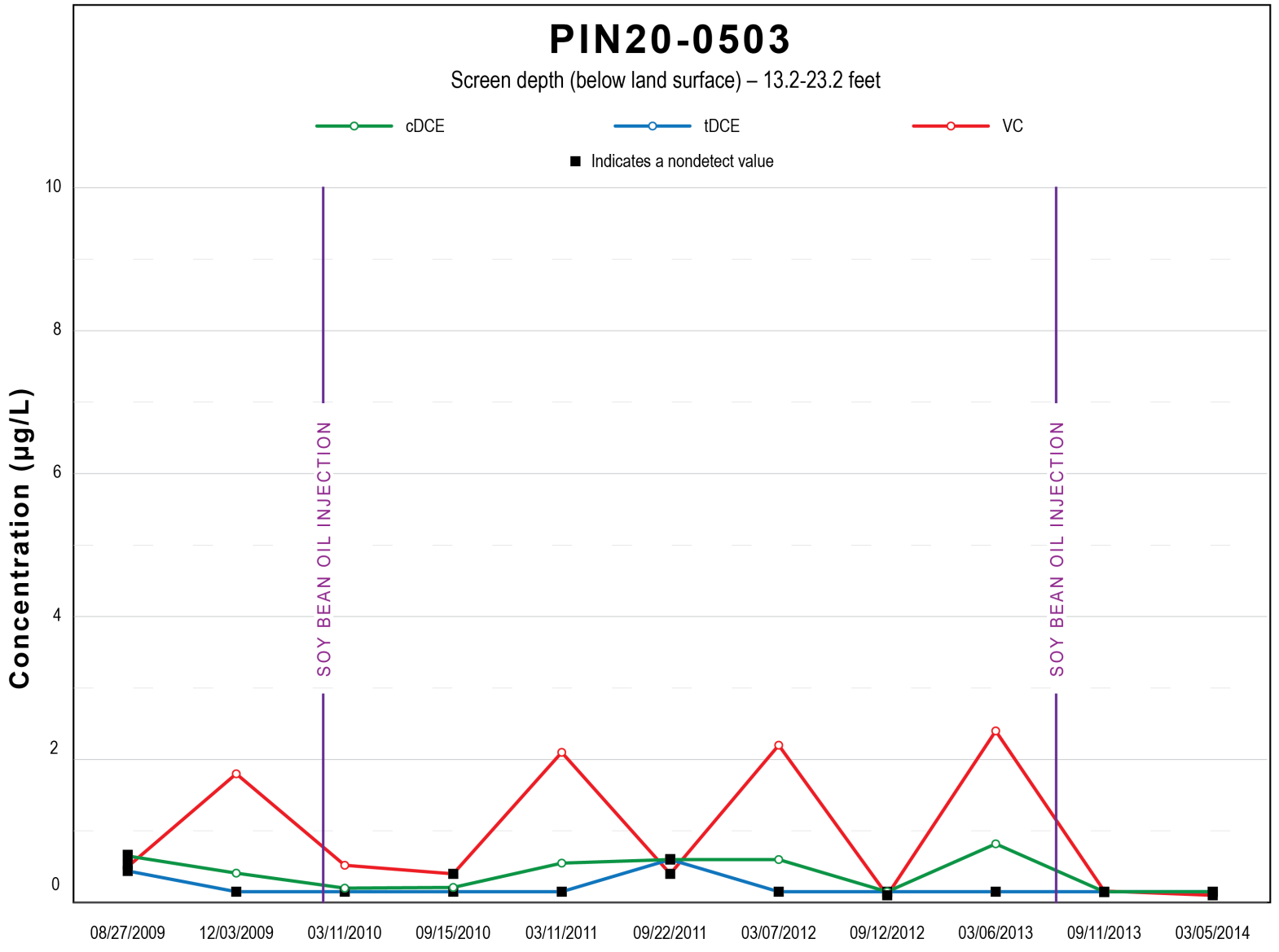

Figure 8. cDCE, tDCE, and VC in Well PIN20-0503, 2009–2014

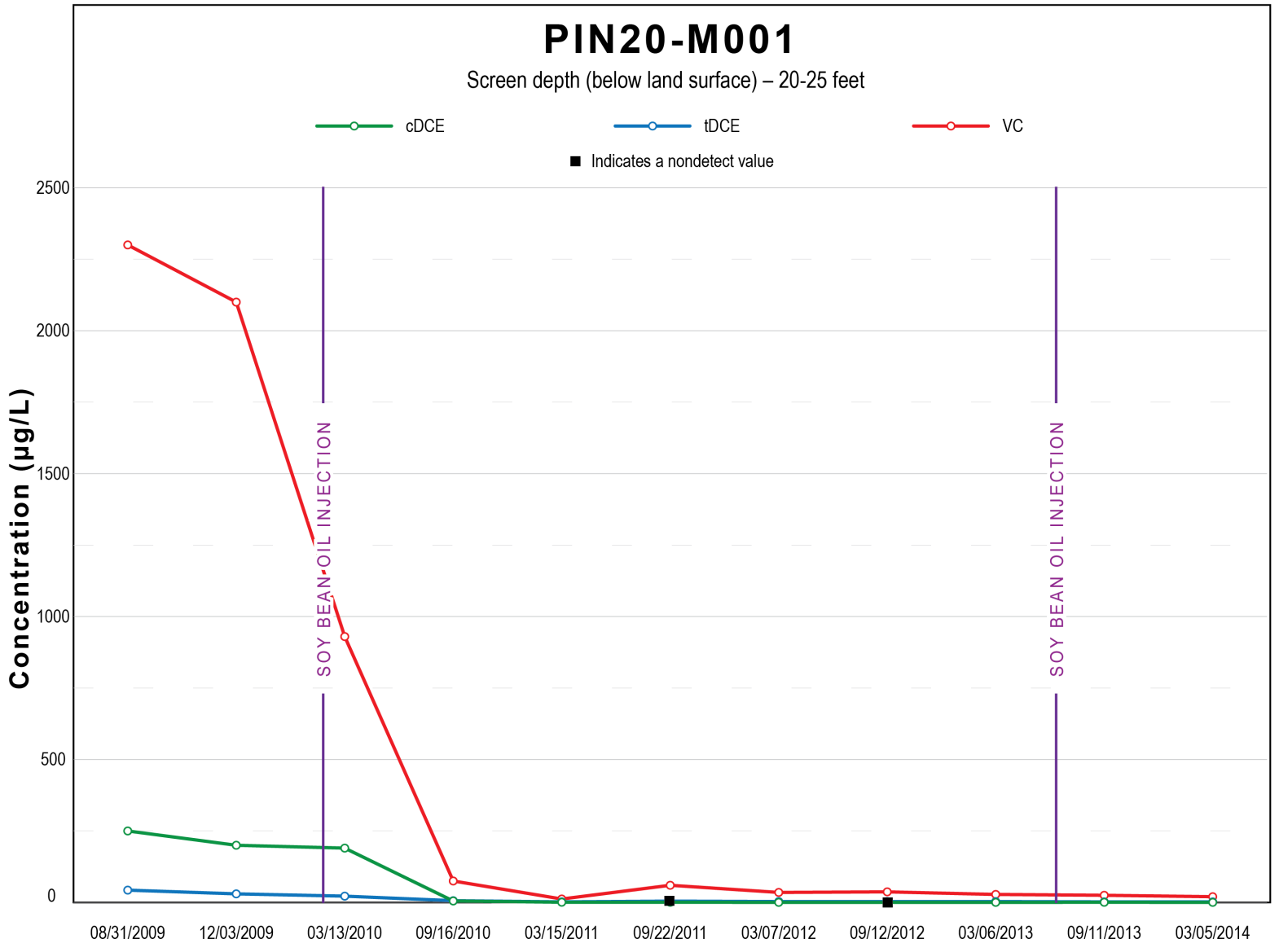

Figure 9. cDCE, tDCE, and VC in Well PIN20-M001, 2009–2014

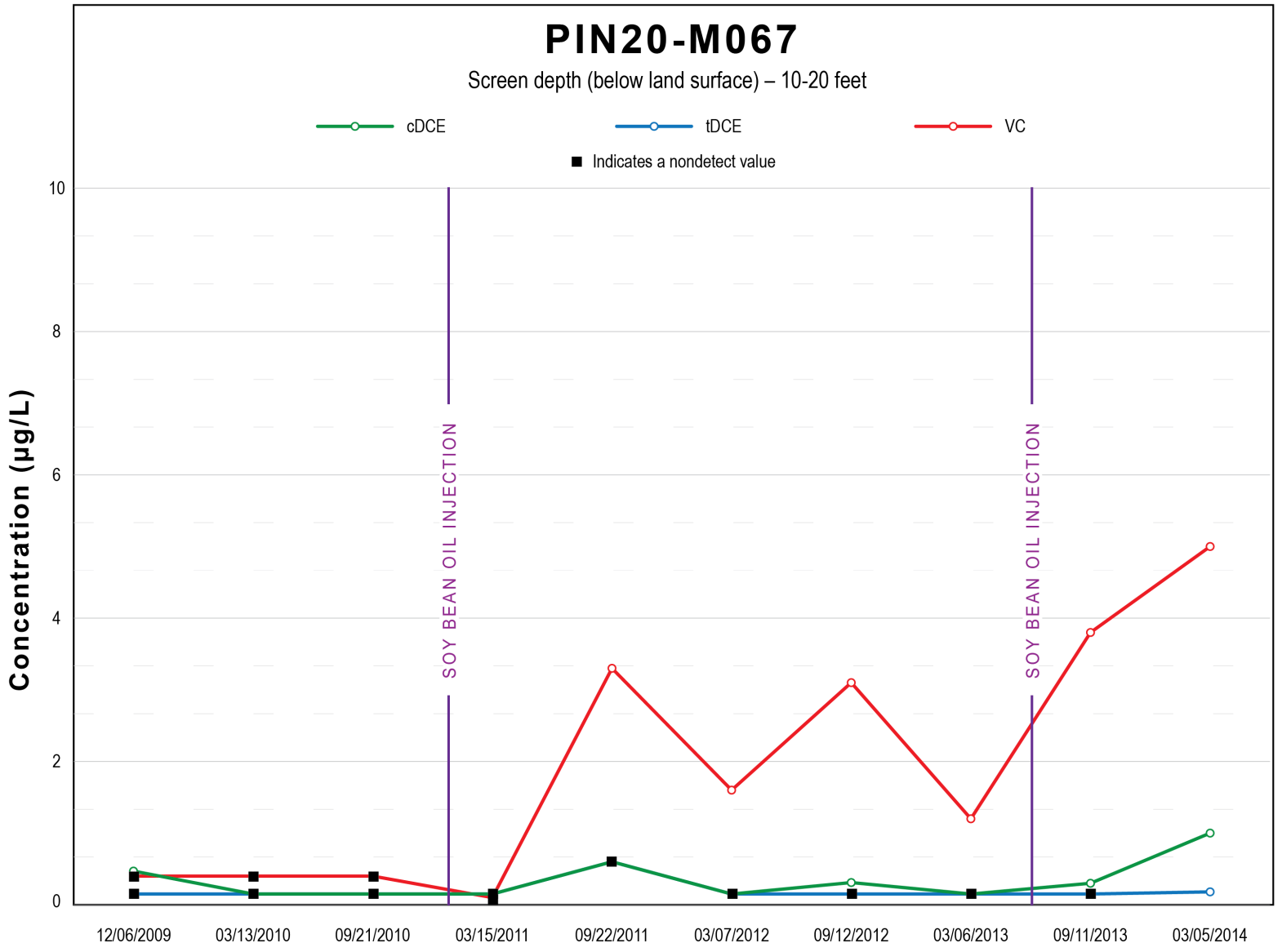

Figure 10. cDCE, tDCE, and VC in Well PIN20-M067, 2009–2014

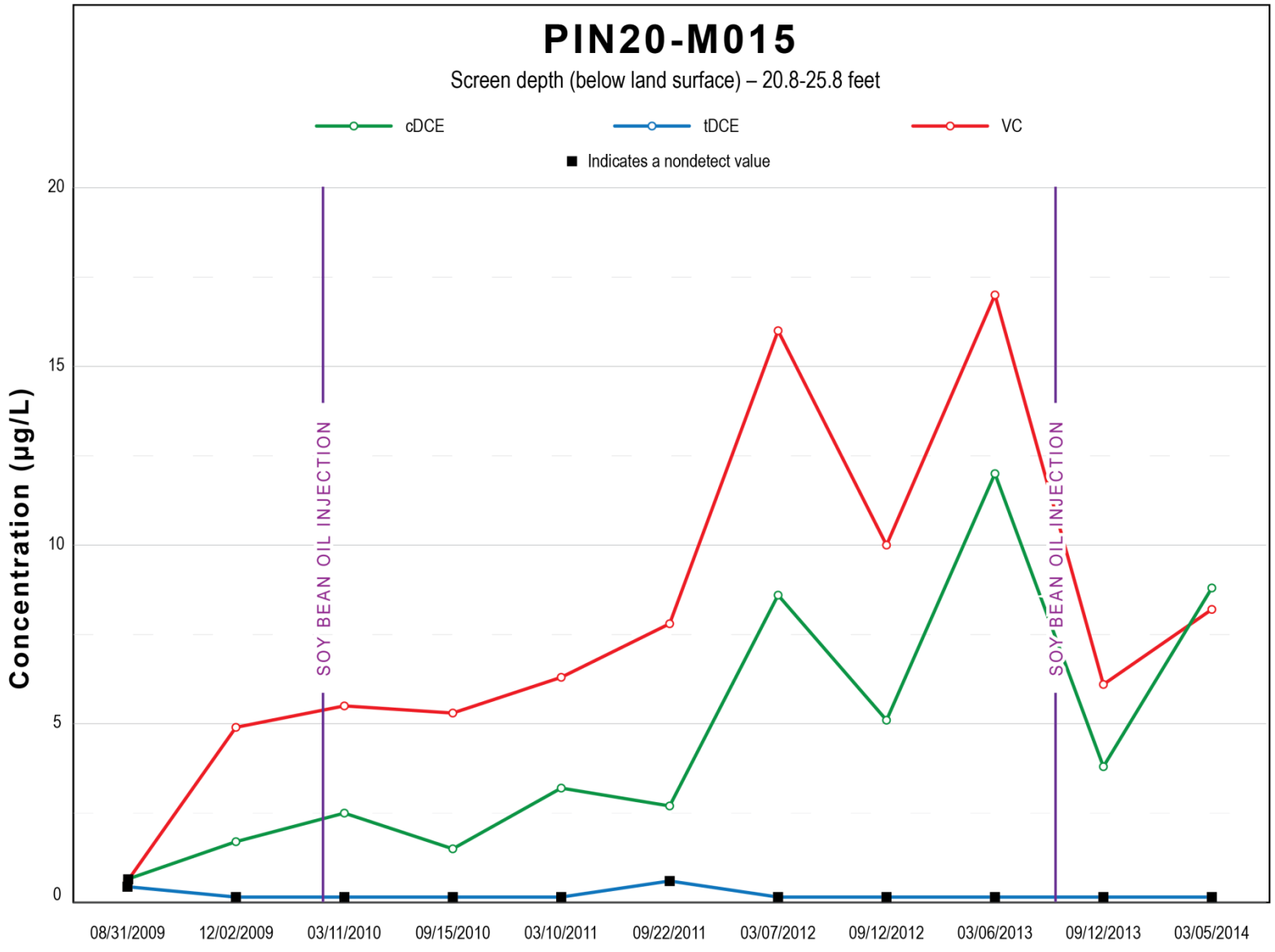

Figure 11. cDCE, tDCE, and VC in Well PIN20-M015, 2009–2014

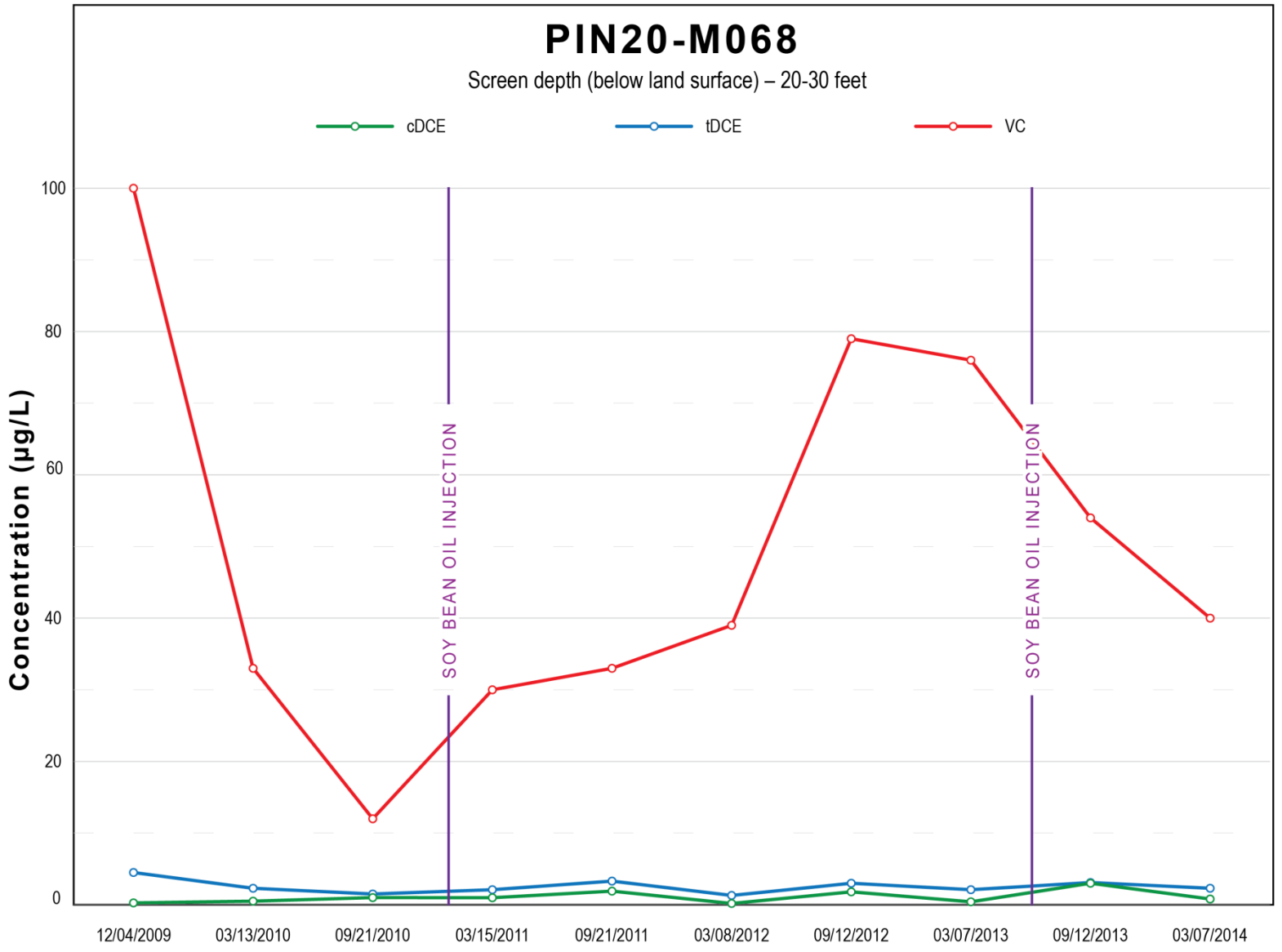

Figure 12. cDCE, tDCE, and VC in Well PIN20-M068, 2009–2014

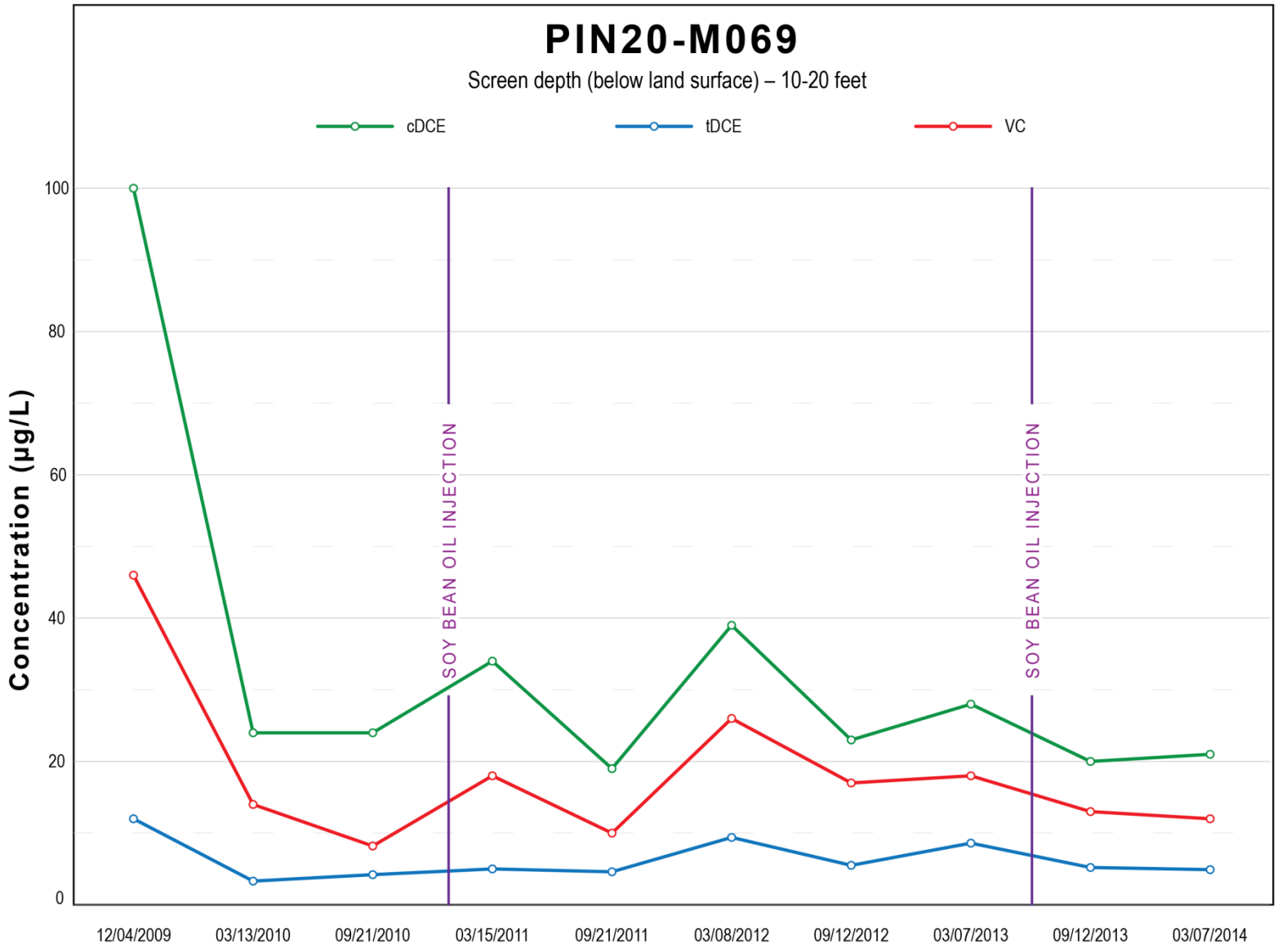

Figure 13. cDCE, tDCE, and VC in Well PIN20-M069, 2009–2014

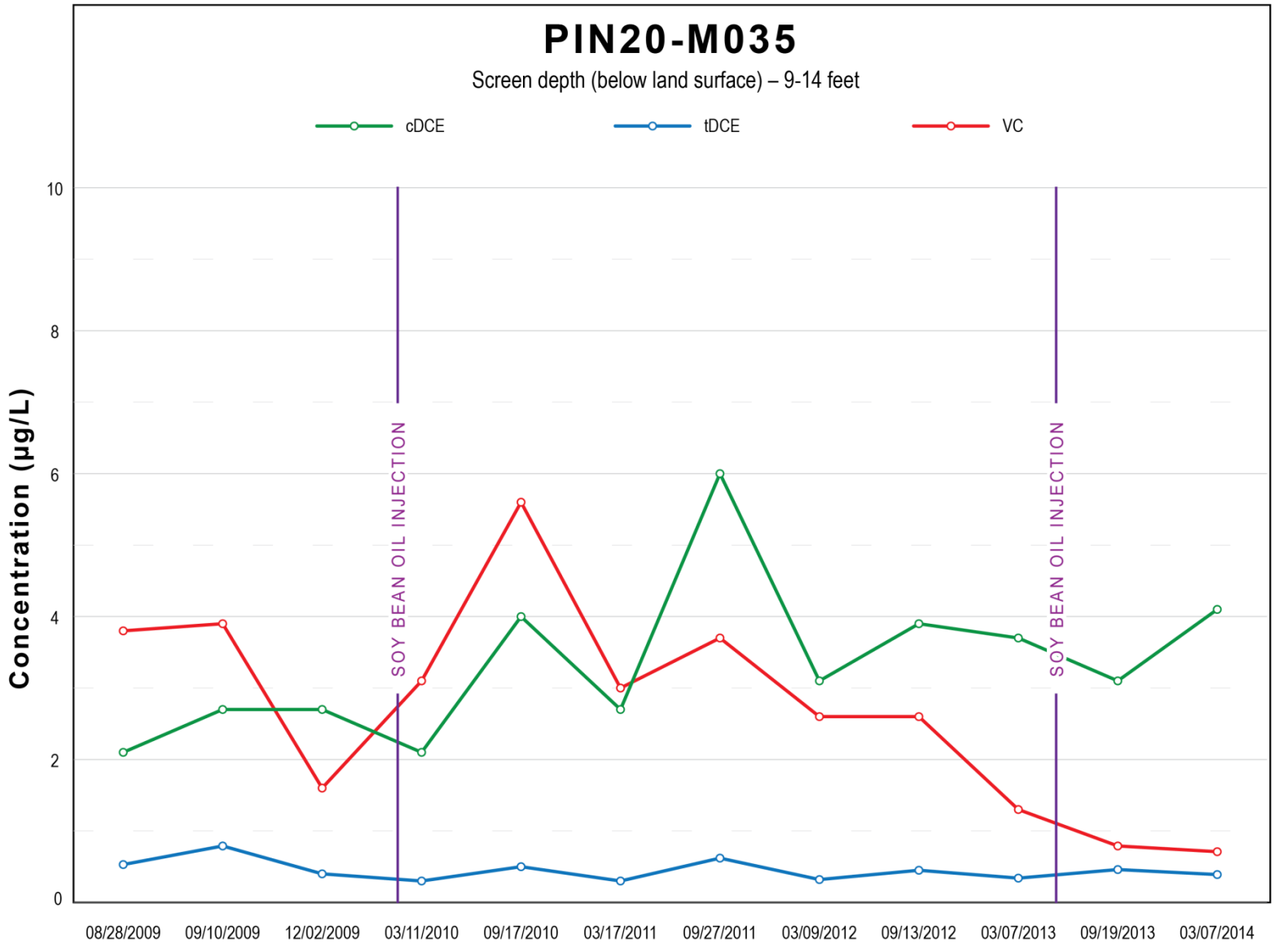

Figure 14. cDCE, tDCE, and VC in Well PIN20-M035, 2009–2014

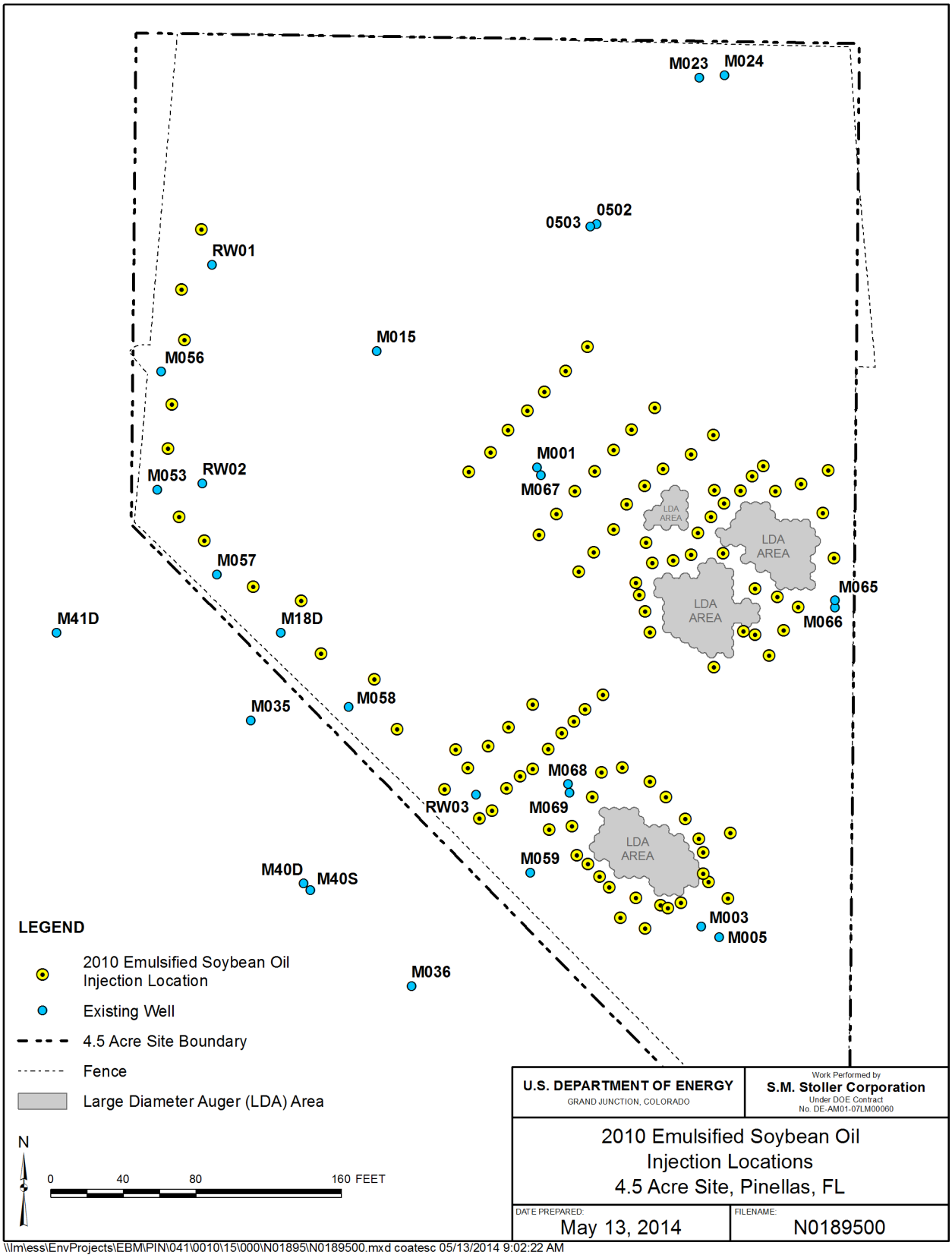

Figure 15. 2010 Emulsified Soybean Oil Injection Locations

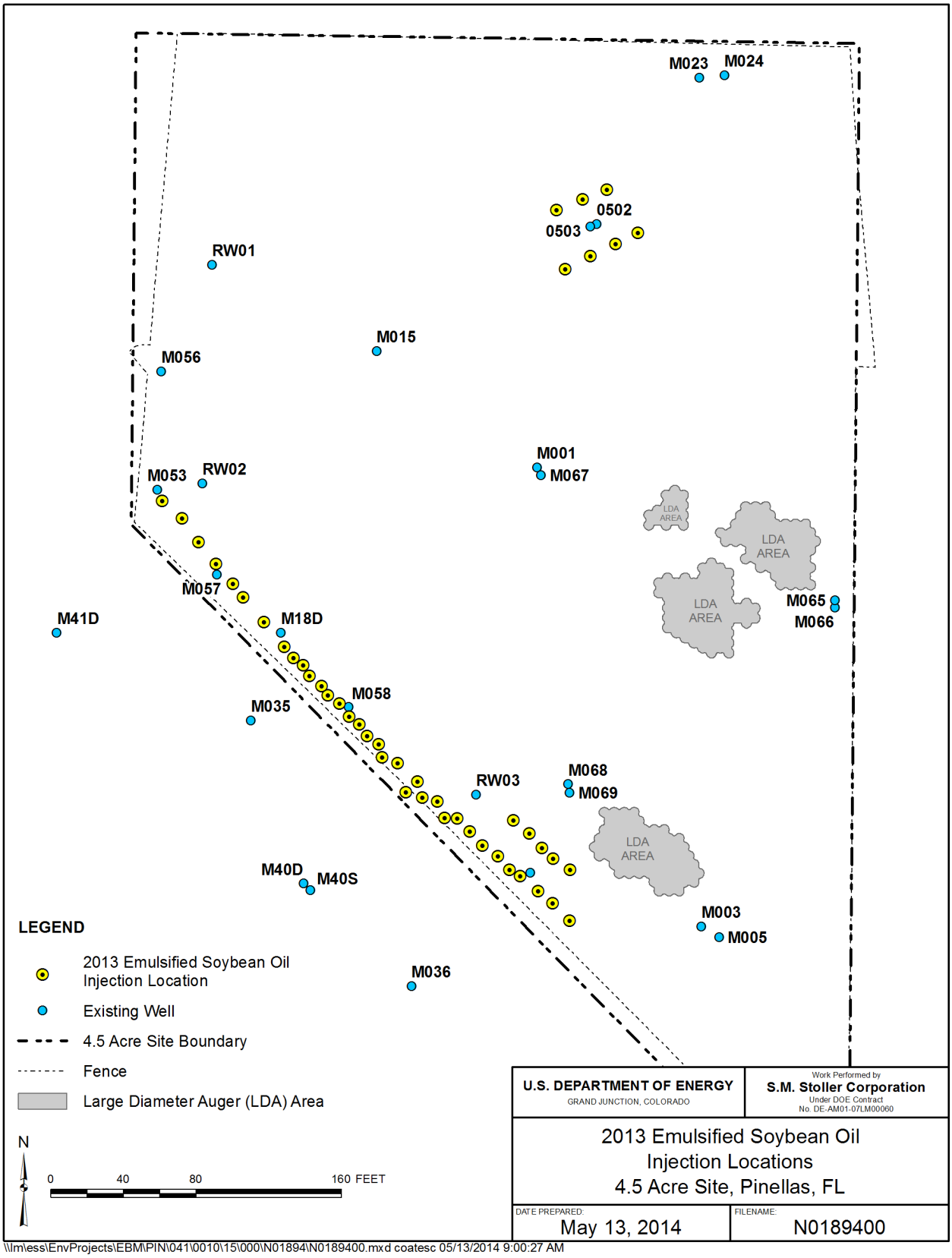

Figure 16. 2013 Emulsified Soybean Oil Injection Locations

Table 1. Groundwater-Level Data at the 4.5 Acre Site, March 2014

Location	Measurement		Water Depth (ft bls)	Groundwater Elevation (ft amsl)
	Date	Time		
PIN20				
0502	3/4/2014	08:59	2.02	15.38
0503	3/4/2014	09:02	1.85	15.55
M001	3/4/2014	08:51	2.27	15.33
M003	3/4/2014	08:37	2.55	15.35
M005	3/4/2014	08:41	2.93	15.37
M015	3/4/2014	09:03	3.23	15.16
M023	3/4/2014	08:57	4.03	15.44
M024	3/4/2014	08:50	2.16	15.64
M035	3/4/2014	08:38	3.61	15.19
M036	3/4/2014	08:44	3.75	15.55
M053	3/4/2014	09:11	2.22	14.98
M056	3/4/2014	09:20	2.08	15.02
M057	3/4/2014	09:09	2.76	15.14
M058	3/4/2014	08:58	2.36	15.34
M059	3/4/2014	08:27	2.45	15.35
M065	3/4/2014	08:48	2.70	15.70
M066	3/4/2014	08:44	2.55	15.65
M067	3/4/2014	08:56	3.29	15.41
M068	3/4/2014	08:29	2.81	15.34
M069	3/4/2014	08:33	2.57	15.43
M18D	3/4/2014	09:02	2.84	14.86
M38D	3/4/2014	08:33	3.97	14.53
M40D	3/4/2014	08:43	3.96	15.44
M40S	3/4/2014	08:40	3.63	15.57
M41D	3/4/2014	08:34	3.84	15.26
RW01	3/4/2014	09:12	2.55	15.05
RW02	3/4/2014	09:14	2.01	15.09
RW03	3/4/2014	08:10	2.65	14.95

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, March 2014

Location	Measurement Date	Time	Surface Water Elevation (ft amsl)
PIN01	**Pond 5**		
P501	3/4/2014	08:03	13.67
P502	3/4/2014	11:05	13.94
PIN02	**West Pond**		
W005	3/4/2014	11:04	13.86
PIN20	**Pond North of the 4.5 Acre Site**		
BP01	–	–	–

Abbreviations:
ft amsl = feet above mean sea level
– = not measured

Table 3. Field Measurements of Samples Collected at the 4.5 Acre Site, March 2014

Location	Screen Depth (ft bls)	Temperature (°C)	Specific Conductance (µmhos/cm)[a]	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)
PIN20							
0502	21.2–31.2	20.8	1,456	2	6.65	-63	1.5
0503	13.2–23.2	21.9	1,232	4	6.70	-43	1.3
M001	20–25	–	–	4	–	–	–
M003	9–14	22.6	893	3	6.65	-44	1.3
M005	25.8–30.7	23.2	1,097	1	6.34	-37	1.5
M015	20.8–25.8	23.7	1,407	5	6.79	-28	1.2
M035	9–14	–	–	26	–	–	–
M065	10–20	24.9	835	1	6.74	-66	1.3
M066	20–30	24.5	867	12	6.73	-62	1.3
M067	10–20	–	–	60	–	–	–
M068	20–30	22.5	1,196	14	6.62	-57	1.4
M069	10–20	21.1	2,581	8	6.88	-128	1.2
M38D	20–30	20.4	735	3	7.14	12	1.4

Notes:
[a] Temperature corrected to 25 °C

Abbreviations:
– = not measured
ft bls = feet below land surface
µmhos/cm = micromhos per centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity units

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

Location (all IDs start with "PIN20-")	Screen Depth (ft bls)	Date Sampled	TCE	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl chloride	Benzene
Cleanup Target Level[b]:			**30**	**700**	**1000**	**10**	**10**
0502	21.2–31.2	8/27/2009	<0.5	61	<0.44	140	<0.5
		12/3/2009	<0.16	29	0.29J	42	<0.16
		3/11/2010	<0.16	66	0.78J	130	<0.16
		9/15/2010	<0.16	62	0.66J	110	<0.16
		3/11/2011	<0.16	50	0.65J	120	<0.16
		9/22/2011	<0.64	51J	<0.6	120J	<0.64
		3/7/2012	<0.16	39	0.39J	74	<0.16
		9/12/2012	<0.16	33	0.39J	75	<0.16
		3/6/2013	<0.16	33	0.4J	55	<0.16
		9/11/2013	<0.16	0.33J	<0.15	<0.1	<0.16
		3/5/2014	<0.16	<0.15	<0.15	<0.1	<0.16
0503	13.2–23.2	8/27/2009	<0.5	<0.65	<0.44	<0.5	<0.5
		12/3/2009	<0.16	0.41J	<0.15	1.8	<0.16
		3/11/2010	<0.16	0.2J	<0.15	0.52J	<0.16
		9/15/2010	<0.16	0.21J	<0.15	<0.4	<0.16
		3/11/2011	<0.16	0.55J	<0.15	2.1	<0.16
		9/22/2011	<0.64	<0.6	<0.6	<0.4	<0.64
		3/7/2012	<0.16	0.6J	<0.15	2.2	<0.16
		9/12/2012	<0.16	0.15J	<0.15	<0.1	<0.16
		3/6/2013	<0.16	0.82J	<0.15	2.4	<0.16
		9/11/2013	<0.16	<0.15	<0.15	0.16J	<0.16
		3/5/2014	<0.16	<0.15	<0.15	<0.1	<0.16
M001	20–25	8/31/2009	<0.5	250	43	2,300	1.4
		12/3/2009	<0.16	200	30	2,100	2
		3/13/2010	<0.64	190	22	930	1.4J
		9/16/2010	<0.32	5.1	6.1	75	1.2J
		3/15/2011	<0.16	0.67J	2	12	0.92J
		9/22/2011	<0.64	<0.6	4.6	60J	<0.64
		3/7/2012	<0.16	0.24J	3.1	35J	1.1
		9/12/2012	<0.16	<0.15	3	37	0.91J
		3/6/2013	<0.16	0.24J	3.1	28	1
		9/11/2013	<0.16	0.49J	2	25	1
		3/5/2014	<0.16	0.26J	1.9	20	0.73J

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

Location (all IDs start with "PIN20-")	Screen Depth (ft bls)	Date Sampled	TCE	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl chloride	Benzene
M003	9–14	8/28/2009	<0.5	<0.65	<0.44	<0.5	<0.5
		12/2/2009	<0.16	<0.15	<0.15	<0.4	<0.16
		3/11/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		9/15/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		3/11/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		9/21/2011	<0.64	<0.6	<0.6	<0.4	<0.64
		3/8/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		9/12/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		3/5/2014	<0.16	<0.15	<0.15	<0.1	<0.16
M005	25.8–30.7	8/31/2009	<0.5	<0.65	<0.44	<0.5	<0.5
		12/2/2009	<0.16	<0.15	<0.15	<0.4	<0.16
		3/11/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		9/15/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		3/11/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		9/21/2011	<0.64	<0.6	<0.6	<0.4	<0.64
		3/8/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		3/5/2014	<0.16	<0.15	<0.15	<0.1	<0.16
M015	20.8–25.8	8/31/2009	<0.5	<0.65	<0.44	0.6J	<0.5
		12/2/2009	<0.16	1.7	<0.15	4.9	<0.16
		3/11/2010	<0.16	2.5	<0.15	5.5	<0.16
		9/15/2010	<0.16	1.5	<0.15	5.3	<0.16
		3/10/2011	<0.16	3.2	<0.15	6.3	<0.16
		9/22/2011	<0.64	2.7J	<0.6	7.8	<0.64
		3/7/2012	<0.16	8.6	<0.15	16	<0.16
		9/12/2012	<0.16	5.1	<0.15	10	<0.16
		3/6/2013	<0.16	12	<0.15	17	<0.16
		9/12/2013	<0.16	3.8	<0.15	6.1	<0.16
		3/5/2014	<0.16	8.8	<0.15	8.2	<0.16

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

Location (all IDs start with "PIN20-")	Screen Depth (ft bls)	Date Sampled	TCE	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl chloride	Benzene
M035	9–14	8/28/2009	0.54J	2.1	0.53J	3.8	<0.5
		9/10/2009	<0.5	2.7	0.79J	3.9	<0.5
		12/2/2009	0.23J	2.7	0.4J	1.6	<0.16
		3/11/2010	0.22J	2.1	0.3J	3.1	<0.16
		9/17/2010	0.23J	4	0.5J	5.6	<0.16
		3/17/2011	0.22J	2.7	0.3J	3	<0.16
		9/27/2011	<0.16	6	0.62J	3.7	<0.16
		3/9/2012	0.18J	3.1	0.32J	2.6	<0.16
		9/13/2012	0.24J	3.9	0.45J	2.6	<0.16
		3/7/2013	0.21J	3.7	0.34J	1.3	<0.16
		9/19/2013	<0.16	3.1	0.46J	0.79J	<0.16
		3/7/2014	<0.16	4.1	0.39J	0.71J	<0.16
M065	10–20	12/3/2009	<0.16	<0.15	<0.15	<0.4	<0.16
		3/13/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		9/15/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		3/12/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		9/22/2011	<0.64	<0.6	<0.6	<0.4	<0.64
		3/7/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		3/5/2014	<0.16	<0.15	<0.15	<0.1	<0.16
M066	20–30	12/3/2009	<0.16	<0.15	<0.15	<0.4	<0.16
		3/13/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		9/15/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		3/12/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		9/22/2011	<0.64	<0.6	<0.6	<0.4	<0.64
		3/7/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		9/12/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		3/5/2014	<0.16	<0.15	<0.15	<0.1	<0.16

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

Location (all IDs start with "PIN20-")	Screen Depth (ft bls)	Date Sampled	TCE	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl chloride	Benzene
M067	10–20	12/6/2009	<0.16	0.47J	<0.15	<0.4	<0.16
		3/13/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		9/21/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		3/15/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		9/22/2011	<0.64	<0.6	<0.6	3.3J	<0.64
		3/7/2012	<0.16	<0.15	<0.15	1.6	<0.16
		9/12/2012	<0.16	0.31J	<0.15	3.1	<0.16
		3/6/2013	<0.16	<0.15	<0.15	1.2	<0.16
		9/11/2013	<0.16	0.3J	<0.15	3.8	<0.16
		3/5/2014	<0.16	1	0.18J	5	<0.16
M068	20–30	12/4/2009	0.27J	0.26J	4.5	100	0.26J
		3/13/2010	0.59J	0.5J	2.3	33	<0.16
		9/21/2010	0.89J	1	1.5	12	<0.16
		3/15/2011	0.9J	0.98J	2.1	30	<0.16
		9/21/2011	1.3J	1.9J	3.3J	33	<0.64
		3/8/2012	<0.16	0.18J	1.3	39	0.28J
		9/12/2012	0.67J	1.8	3	79	0.27J
		3/7/2013	<0.16	0.41J	2.1	76	<0.16
		9/12/2013	0.59J	3	3.1	54	0.26J
		3/7/2014	<0.16	0.8J	2.3	40	0.37J
M069	10–20	12/4/2009	9.3	100	12	46	<0.16
		3/13/2010	2	24	3.3	14	<0.16
		9/21/2010	1.6	24	4.2	8.2	<0.16
		3/15/2011	2.7	34	5	18	<0.16
		9/21/2011	<0.64	19	4.6	10	<0.64
		3/8/2012	1.1	39	9.4	26	<0.16
		9/12/2012	0.18J	23	5.5	17	<0.16
		3/7/2013	<0.16	28	8.6	18	<0.16
		9/12/2013	<0.16	20	5.2	13	<0.16
		3/7/2014	<0.16	21	4.9	12	<0.16

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

Location (all IDs start with "PIN20-")	Screen Depth (ft bls)	Date Sampled	TCE	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl chloride	Benzene
M38D	20–30	8/27/2009	<0.5	<0.65	<0.44	<0.5	<0.5
		12/2/2009	<0.16	<0.15	<0.15	<0.4	<0.16
		3/11/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		9/17/2010	<0.16	<0.15	<0.15	<0.4	<0.16
		3/17/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		9/27/2011	<0.16	<0.15	<0.15	<0.1	<0.16
		3/9/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		9/13/2012	<0.16	<0.15	<0.15	<0.1	<0.16
		3/7/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		9/19/2013	<0.16	<0.15	<0.15	<0.1	<0.16
		3/7/2014	<0.16	<0.15	<0.15	<0.1	<0.16

Notes:
Arsenic, while a COPC, is not included in this table or in the TCOPCs value.
[a] "<" values are method detection limits.
[b] 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. Maximum COPCs Concentrations in March 2014 Compared to CTLs (µg/L)

	Maximum Concentration Detected in March 2014	Poor Groundwater Quality CTL (onsite CTL)	Regular CTL (offsite CTL)
TCE	Not detected above 0.16 µg/L	30	3
cDCE	21	700	70
tDCE	5	1000	100
VC	40	10	1
Benzene	0.7	10	1

Table 6. Sodium, Sulfate, and Total Recoverable Petroleum Hydrocarbons Results (mg/L)

Monitoring Well	Date Sampled	Sodium	Sulfate	Total Recoverable Petroleum Hydrocarbons
CTL:		**160**	**250**	**5**
PIN20-M035	9/19/2013	37	23	9.1
	3/7/2014	37	220	2.7U
PIN20-M068	7/10/2013	51	190	1.8U
	3/7/2014	58	150	2.8U

Abbreviations:
mg/L = milligrams/liter
U = not detected at the listed limit.

Table 7. Relative Percent Difference (RPD) for Duplicate Samples, March 2014 (Reported in µg/L)

Sample ID	Duplicate ID	Analyte	Result	Duplicate Result	MDL	RPD
PIN20-M035	PIN20-2581	*cis*-1,2-dichloroethene	4.1	4.4	0.15	7
		trans-1,2-dichloroethene	0.39	0.46	0.15	Range <5X PQL
		Vinyl chloride	0.71	0.74	0.10	4

Abbreviations:
MDL = method detection limit

Appendix A

Laboratory Reports

March 2014 Semiannual Monitoring

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-52890-1

SDG Number: 14025947

Job Description: PINELLAS MONITORING

For:
S.M. Stoller Corporation
2597 Legacy Way
Grand Junction, CO 81503

Attention: Mr. Steve Donivan

Approved for release.
DiLea R Griego
Project Manager I
3/25/2014 12:05 PM

DiLea R Griego, Project Manager I
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0173
dilea.griego@testamericainc.com
03/25/2014

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, 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.

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 - 14025947

Report Number: 280-52890-1

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 3/8/2014 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8º C and 3.7º C.

GC/MS VOLATILES - SW846 8260B

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

DATA REPORTING QUALIFIERS

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

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: 280-52890-1
Sdg Number: 14025947

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-52890-1	PIN20-0502	Water	03/05/2014 0830	03/08/2014 1000
280-52890-1MS	PIN20-0502	Water	03/05/2014 0830	03/08/2014 1000
280-52890-1MSD	PIN20-0502	Water	03/05/2014 0830	03/08/2014 1000
280-52890-2	PIN20-0503	Water	03/05/2014 0910	03/08/2014 1000
280-52890-3	PIN99-2456	Water	03/05/2014 0800	03/08/2014 1000
280-52890-4	PIN20-M001	Water	03/05/2014 1100	03/08/2014 1000
280-52890-5	PIN20-M003	Water	03/05/2014 1520	03/08/2014 1000
280-52890-6	PIN20-M005	Water	03/05/2014 1555	03/08/2014 1000
280-52890-7	PIN20-M015	Water	03/05/2014 1000	03/08/2014 1000
280-52890-8	PIN20-M065	Water	03/05/2014 1400	03/08/2014 1000
280-52890-9	PIN20-M066	Water	03/05/2014 1435	03/08/2014 1000
280-52890-10	PIN20-M067	Water	03/05/2014 1145	03/08/2014 1000

EXECUTIVE SUMMARY - Detections

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-52890-3	**PIN99-2456**					
cis-1,2-Dichloroethene		2.4		1.0	ug/L	8260B
Vinyl chloride		5.1		1.0	ug/L	8260B
280-52890-4	**PIN20-M001**					
Benzene		0.73	J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		0.26	J	1.0	ug/L	8260B
trans-1,2-Dichloroethene		1.9		1.0	ug/L	8260B
1,1-Dichloropropene		0.68	J	1.0	ug/L	8260B
Vinyl chloride		20		1.0	ug/L	8260B
280-52890-7	**PIN20-M015**					
cis-1,2-Dichloroethene		8.8		1.0	ug/L	8260B
Vinyl chloride		8.2		1.0	ug/L	8260B
280-52890-8	**PIN20-M065**					
Acetone		2.2	J	10	ug/L	8260B
280-52890-10	**PIN20-M067**					
cis-1,2-Dichloroethene		1.0		1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.18	J	1.0	ug/L	8260B
Vinyl chloride		5.0		1.0	ug/L	8260B

METHOD SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

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: 280-52890-1
Sdg Number: 14025947

Method	Analyst	Analyst ID
SW846 8260B	Contreras, Evan	EC

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-0502**

Lab Sample ID: 280-52890-1
Client Matrix: Water

Date Sampled: 03/05/2014 0830
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3223.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0021			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0021				

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-0502**

Lab Sample ID: 280-52890-1
Client Matrix: Water

Date Sampled: 03/05/2014 0830
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3223.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0021			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0021				

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)	93		70 - 127
Toluene-d8 (Surr)	101		80 - 125
4-Bromofluorobenzene (Surr)	106		78 - 120
Dibromofluoromethane (Surr)	99		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-0503**

Lab Sample ID: 280-52890-2
Client Matrix: Water

Date Sampled: 03/05/2014 0910
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3222.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0000			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0000				

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-0503**

Lab Sample ID: 280-52890-2
Client Matrix: Water

Date Sampled: 03/05/2014 0910
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3222.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0000			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0000				

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)	113		80 - 125
4-Bromofluorobenzene (Surr)	117		78 - 120
Dibromofluoromethane (Surr)	108		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN99-2456**

Lab Sample ID: 280-52890-3
Client Matrix: Water

Date Sampled: 03/05/2014 0800
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3224.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0043			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0043				

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	2.4		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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN99-2456**

Lab Sample ID: 280-52890-3
Client Matrix: Water

Date Sampled: 03/05/2014 0800
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3224.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0043			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0043				

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	5.1		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)	94		70 - 127
Toluene-d8 (Surr)	103		80 - 125
4-Bromofluorobenzene (Surr)	110		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M001**

Lab Sample ID: 280-52890-4
Client Matrix: Water

Date Sampled: 03/05/2014 1100
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3225.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0104			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0104				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.73	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	0.26	J	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	0.68	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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M001**

Lab Sample ID: 280-52890-4
Client Matrix: Water

Date Sampled: 03/05/2014 1100
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3225.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0104			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0104				

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	20		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)	101		70 - 127
Toluene-d8 (Surr)	99		80 - 125
4-Bromofluorobenzene (Surr)	111		78 - 120
Dibromofluoromethane (Surr)	109		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M003**

Lab Sample ID: 280-52890-5
Client Matrix: Water

Date Sampled: 03/05/2014 1520
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3226.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0125			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0125				

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M003**

Lab Sample ID: 280-52890-5
Client Matrix: Water

Date Sampled: 03/05/2014 1520
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3226.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0125			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0125				

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)	98		70 - 127
Toluene-d8 (Surr)	100		80 - 125
4-Bromofluorobenzene (Surr)	110		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M005**

Lab Sample ID: 280-52890-6
Client Matrix: Water

Date Sampled: 03/05/2014 1555
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3227.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0147			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0147				

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M005**

Lab Sample ID: 280-52890-6
Client Matrix: Water

Date Sampled: 03/05/2014 1555
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3227.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0147			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0147				

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)	100		70 - 127
Toluene-d8 (Surr)	103		80 - 125
4-Bromofluorobenzene (Surr)	103		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M015**

Lab Sample ID: 280-52890-7
Client Matrix: Water

Date Sampled: 03/05/2014 1000
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3228.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0208			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0208				

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	8.8		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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M015**

Lab Sample ID: 280-52890-7
Client Matrix: Water

Date Sampled: 03/05/2014 1000
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3228.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0208			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0208				

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	8.2		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)	101		70 - 127
Toluene-d8 (Surr)	98		80 - 125
4-Bromofluorobenzene (Surr)	105		78 - 120
Dibromofluoromethane (Surr)	106		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M065**

Lab Sample ID: 280-52890-8
Client Matrix: Water

Date Sampled: 03/05/2014 1400
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3229.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0229			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0229				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	2.2	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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M065**

Lab Sample ID: 280-52890-8
Client Matrix: Water

Date Sampled: 03/05/2014 1400
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3229.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0229			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0229				

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)	98		70 - 127
Toluene-d8 (Surr)	96		80 - 125
4-Bromofluorobenzene (Surr)	104		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M066**

Lab Sample ID: 280-52890-9
Client Matrix: Water

Date Sampled: 03/05/2014 1435
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3230.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0251			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0251				

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M066**

Lab Sample ID: 280-52890-9
Client Matrix: Water

Date Sampled: 03/05/2014 1435
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3230.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0251			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0251				

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)	101		70 - 127
Toluene-d8 (Surr)	101		80 - 125
4-Bromofluorobenzene (Surr)	105		78 - 120
Dibromofluoromethane (Surr)	110		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M067**

Lab Sample ID: 280-52890-10
Client Matrix: Water

Date Sampled: 03/05/2014 1145
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3231.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0312			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0312				

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	1.0		0.15	1.0
trans-1,2-Dichloroethene	0.18	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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M067**

Lab Sample ID: 280-52890-10
Client Matrix: Water

Date Sampled: 03/05/2014 1145
Date Received: 03/08/2014 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3231.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/12/2014 0312			Final Weight/Volume:	20 mL
Prep Date:	03/12/2014 0312				

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	5.0		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)	96		70 - 127
Toluene-d8 (Surr)	94		80 - 125
4-Bromofluorobenzene (Surr)	94		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

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
280-52890-1	PIN20-0502	99	93	101	106
280-52890-2	PIN20-0503	108	102	113	117
280-52890-3	PIN99-2456	100	94	103	110
280-52890-4	PIN20-M001	109	101	99	111
280-52890-5	PIN20-M003	105	98	100	110
280-52890-6	PIN20-M005	105	100	103	103
280-52890-7	PIN20-M015	106	101	98	105
280-52890-8	PIN20-M065	105	98	96	104
280-52890-9	PIN20-M066	110	101	101	105
280-52890-10	PIN20-M067	105	96	94	94
MB 280-216421/5		105	97	107	112
LCS 280-216421/4		104	97	105	118
280-52890-1 MS	PIN20-0502 MS	95	92	94	109
280-52890-1 MSD	PIN20-0502 MSD	99	93	97	111

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Method Blank - Batch: 280-216421

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-216421/5	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3216.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/11/2014 2151	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/11/2014 2151				
Leach Date:	N/A				

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

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Method Blank - Batch: 280-216421

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-216421/5	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3216.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/11/2014 2151	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/11/2014 2151				
Leach Date:	N/A				

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)	107	80 - 125
4-Bromofluorobenzene (Surr)	112	78 - 120
Dibromofluoromethane (Surr)	105	77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Lab Control Sample - Batch: 280-216421

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 280-216421/4	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3217.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/11/2014 2212	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/11/2014 2212				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	5.00	5.00	100	74 - 135	
Bromodichloromethane	5.00	4.46	89	73 - 135	
Carbon tetrachloride	5.00	4.62	92	67 - 135	
Chlorobenzene	5.00	4.52	90	76 - 135	
Chloroform	5.00	4.28	86	76 - 120	
1,3-Dichlorobenzene	5.00	5.01	100	74 - 135	
1,1-Dichloroethane	5.00	4.24	85	75 - 135	
trans-1,2-Dichloroethene	5.00	4.74	95	75 - 135	
1,1-Dichloroethene	5.00	4.88	98	71 - 136	
1,2-Dichloropropane	5.00	4.54	91	71 - 120	
Ethylbenzene	5.00	5.00	100	72 - 120	
Methylene Chloride	5.00	3.72	74	54 - 141	
Tetrachloroethene	5.00	4.94	99	70 - 135	
Toluene	5.00	5.93	119	73 - 120	
1,1,1-Trichloroethane	5.00	4.56	91	70 - 135	
Trichloroethene	5.00	5.37	107	73 - 135	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	70 - 127
Toluene-d8 (Surr)	105	80 - 125
4-Bromofluorobenzene (Surr)	118	78 - 120
Dibromofluoromethane (Surr)	104	77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-216421

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-52890-1	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3220.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/11/2014 2317			Final Weight/Volume:	20 mL
Prep Date:	03/11/2014 2317				20 mL
Leach Date:	N/A				

MSD Lab Sample ID:	280-52890-1	Analysis Batch:	280-216421	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3221.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/11/2014 2338			Final Weight/Volume:	20 mL
Prep Date:	03/11/2014 2338				20 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	92	92	74 - 135	0	20		
Bromodichloromethane	83	84	73 - 135	2	20		
Carbon tetrachloride	72	74	67 - 135	2	21		
Chlorobenzene	84	84	76 - 135	0	20		
Chloroform	80	81	76 - 120	2	20		
1,3-Dichlorobenzene	92	92	74 - 135	1	20		
1,1-Dichloroethane	80	79	75 - 135	2	21		
trans-1,2-Dichloroethene	82	83	75 - 135	2	24		
1,1-Dichloroethene	76	78	71 - 136	2	20		
1,2-Dichloropropane	82	82	71 - 120	0	20		
Ethylbenzene	89	86	72 - 120	4	26		
Methylene Chloride	57	63	54 - 141	9	20		
Tetrachloroethene	83	81	70 - 135	3	20		
Toluene	107	107	73 - 120	0	20		
1,1,1-Trichloroethane	75	77	70 - 135	2	20		
Trichloroethene	88	92	73 - 135	4	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	93	70 - 127
Toluene-d8 (Surr)	94	97	80 - 125
4-Bromofluorobenzene (Surr)	109	111	78 - 120
Dibromofluoromethane (Surr)	95	99	77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-216421

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-52890-1	Units:	ug/L	MSD Lab Sample ID:	280-52890-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/11/2014 2317			Analysis Date:	03/11/2014 2338
Prep Date:	03/11/2014 2317			Prep Date:	03/11/2014 2338
Leach Date:	N/A			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	4.58	4.60
Bromodichloromethane	0.17	U	5.00	5.00	4.14	4.22
Carbon tetrachloride	0.19	U	5.00	5.00	3.62	3.68
Chlorobenzene	0.17	U	5.00	5.00	4.18	4.20
Chloroform	0.16	U	5.00	5.00	3.98	4.04
1,3-Dichlorobenzene	0.13	U	5.00	5.00	4.61	4.58
1,1-Dichloroethane	0.22	U	5.00	5.00	4.02	3.95
trans-1,2-Dichloroethene	0.15	U	5.00	5.00	4.08	4.17
1,1-Dichloroethene	0.23	U	5.00	5.00	3.81	3.89
1,2-Dichloropropane	0.18	U	5.00	5.00	4.08	4.10
Ethylbenzene	0.16	U	5.00	5.00	4.46	4.31
Methylene Chloride	0.32	U	5.00	5.00	2.87	3.13
Tetrachloroethene	0.20	U	5.00	5.00	4.16	4.04
Toluene	0.17	U	5.00	5.00	5.34	5.35
1,1,1-Trichloroethane	0.16	U	5.00	5.00	3.73	3.83
Trichloroethene	0.16	U	5.00	5.00	4.42	4.61

Client: S.M. Stoller Corporation

Job Number: 280-52890-1
Sdg Number: 14025947

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-216421					
LCS 280-216421/4	Lab Control Sample	T	Water	8260B	
MB 280-216421/5	Method Blank	T	Water	8260B	
280-52890-1	PIN20-0502	T	Water	8260B	
280-52890-1MS	Matrix Spike	T	Water	8260B	
280-52890-1MSD	Matrix Spike Duplicate	T	Water	8260B	
280-52890-2	PIN20-0503	T	Water	8260B	
280-52890-3	PIN99-2456	T	Water	8260B	
280-52890-4	PIN20-M001	T	Water	8260B	
280-52890-5	PIN20-M003	T	Water	8260B	
280-52890-6	PIN20-M005	T	Water	8260B	
280-52890-7	PIN20-M015	T	Water	8260B	
280-52890-8	PIN20-M065	T	Water	8260B	
280-52890-9	PIN20-M066	T	Water	8260B	
280-52890-10	PIN20-M067	T	Water	8260B	

Report Basis
T = Total

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-52990-1

SDG Number: 14025947

Job Description: PINELLAS MONITORING

For:
S.M. Stoller Corporation
2597 Legacy Way
Grand Junction, CO 81503

Attention: Mr. Steve Donivan

Approved for release.
DiLea R Griego
Project Manager I
4/15/2014 1:36 PM

DiLea R Griego, Project Manager I
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0173
dilea.griego@testamericainc.com
04/15/2014
Revision: 1

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, 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.

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 - 14025947

Report Number: 280-52990-1

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 3/12/2014 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.8º C, 2.1º C and 4.5º C.

Revision 1

The MS/MSD spike amount in the original report was reported incorrectly at 125mg/L. The incorrect spike amount caused the MS/MSD recoveries to be outside control limits, biased high. The MS/MSD spike amounts have been corrected to 250mg/L according to the instrument the samples were analyzed on. The MS/MSD results were re-calculated and recovered within the control limits at 97% and 101%, respectively.

GC/MS VOLATILES - SW846 8260B

No anomalies were encountered.

TOTAL METALS - SW846 6010B - Sodium

Sodium was detected in the method blank associated with batch 280-216692 at a level that was above the method detection limit but not greater than half the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated samples reported a result above the MDL and/or RL, the result has been “B” flagged.

No other anomalies were encountered.

SGT-HEM (TRPH) - EPA 1664A

Samples were analyzed for HEM (Oil and Grease) and no detectable concentrations were present; therefore, n-Hexane Extractable Material, SGT is reported as ND (not-detected).

Due to insufficient sample volume submitted by the client, Rocky Flats sample specific Matrix Spike Duplicate analysis could not be performed.

The Matrix Spike aliquot performed on sample PIN20-M035 (MDR 543) exhibited a percent recovery outside the control limits, biased low. The associated method blank was within control limits.

No other anomalies were encountered.

SULFATE - SW846 9056A

Due to high constituent concentration, samples required dilutions prior to analysis. The reporting limits have been elevated accordingly.

The MS/MSD performed on sample PIN20-M035 (MDR 543) exhibited percent recoveries outside the control limits, biased high. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

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		
	B	Compound was found in the blank and sample.
	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.
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

SAMPLE SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-52990-1	PIN99-2457	Water	03/07/2014 0800	03/12/2014 0950
280-52990-2	PIN20-2581	Water	03/07/2014 1200	03/12/2014 0950
280-52990-3	PIN20-M035	Water	03/07/2014 0830	03/12/2014 0950
280-52990-3MS	PIN20-M035	Water	03/07/2014 0830	03/12/2014 0950
280-52990-3MSD	PIN20-M035	Water	03/07/2014 0830	03/12/2014 0950
280-52990-4	PIN20-M068	Water	03/07/2014 1030	03/12/2014 0950
280-52990-5	PIN20-M069	Water	03/07/2014 1135	03/12/2014 0950
280-52990-6	PIN20-M38D	Water	03/07/2014 0940	03/12/2014 0950

EXECUTIVE SUMMARY - Detections

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-52990-1	**PIN99-2457**					
Acetone		16		10	ug/L	8260B
280-52990-2	**PIN20-2581**					
Acetone		16		10	ug/L	8260B
cis-1,2-Dichloroethene		4.4		1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.46	J	1.0	ug/L	8260B
Vinyl chloride		0.74	J	1.0	ug/L	8260B
280-52990-3	**PIN20-M035**					
Acetone		21		10	ug/L	8260B
cis-1,2-Dichloroethene		4.1		1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.39	J	1.0	ug/L	8260B
Vinyl chloride		0.71	J	1.0	ug/L	8260B
Sodium		37000	B	1000	ug/L	6010B
Sulfate		220		50	mg/L	9056A
280-52990-4	**PIN20-M068**					
Acetone		18		10	ug/L	8260B
Benzene		0.37	J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		0.80	J	1.0	ug/L	8260B
trans-1,2-Dichloroethene		2.3		1.0	ug/L	8260B
Vinyl chloride		40		1.0	ug/L	8260B
Sodium		58000	B	1000	ug/L	6010B
Sulfate		150		25	mg/L	9056A
280-52990-5	**PIN20-M069**					
Acetone		55		10	ug/L	8260B
cis-1,2-Dichloroethene		21		1.0	ug/L	8260B
trans-1,2-Dichloroethene		4.9		1.0	ug/L	8260B
1,1-Dichloroethene		0.27	J	1.0	ug/L	8260B
Vinyl chloride		12		1.0	ug/L	8260B
280-52990-6	**PIN20-M38D**					
Acetone		11		10	ug/L	8260B

METHOD SUMMARY

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

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
SGT-HEM (TRPH)	TAL DEN	EPA 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Anions, Ion Chromatography	TAL DEN	SW846 9056A	

Lab References:

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: 280-52990-1
Sdg Number: 14025947

Method	Analyst	Analyst ID
SW846 8260B	Wickham, Tom A	TAW
SW846 6010B	Harre, John K	JKH
EPA 1664A	Benson, Alex F	AFB
SW846 9056A	Phan, Thu L	TLP

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN99-2457**

Lab Sample ID: 280-52990-1
Client Matrix: Water

Date Sampled: 03/07/2014 0800
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3344.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1333			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1333				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	16		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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN99-2457**

Lab Sample ID: 280-52990-1
Client Matrix: Water

Date Sampled: 03/07/2014 0800
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3344.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1333			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1333				

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)	94		70 - 127
Toluene-d8 (Surr)	88		80 - 125
4-Bromofluorobenzene (Surr)	102		78 - 120
Dibromofluoromethane (Surr)	92		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-2581**

Lab Sample ID: 280-52990-2
Client Matrix: Water

Date Sampled: 03/07/2014 1200
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3345.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1355			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1355				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	16		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	4.4		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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-2581**

Lab Sample ID: 280-52990-2
Client Matrix: Water

Date Sampled: 03/07/2014 1200
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3345.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1355			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1355				

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	0.74	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)	103		70 - 127
Toluene-d8 (Surr)	93		80 - 125
4-Bromofluorobenzene (Surr)	113		78 - 120
Dibromofluoromethane (Surr)	106		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M035**

Lab Sample ID: 280-52990-3
Client Matrix: Water

Date Sampled: 03/07/2014 0830
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3341.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1228			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1228				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	21		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	4.1		0.15	1.0
trans-1,2-Dichloroethene	0.39	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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M035**

Lab Sample ID: 280-52990-3
Client Matrix: Water

Date Sampled: 03/07/2014 0830
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3341.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1228			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1228				

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	0.71	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)	101		70 - 127
Toluene-d8 (Surr)	93		80 - 125
4-Bromofluorobenzene (Surr)	112		78 - 120
Dibromofluoromethane (Surr)	104		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M068**

Lab Sample ID: 280-52990-4
Client Matrix: Water

Date Sampled: 03/07/2014 1030
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3346.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1417			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1417				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	18		1.9	10
Benzene	0.37	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	0.80	J	0.15	1.0
trans-1,2-Dichloroethene	2.3		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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M068**

Lab Sample ID: 280-52990-4
Client Matrix: Water

Date Sampled: 03/07/2014 1030
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3346.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1417			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1417				

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	40		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)	103		70 - 127
Toluene-d8 (Surr)	86		80 - 125
4-Bromofluorobenzene (Surr)	102		78 - 120
Dibromofluoromethane (Surr)	112		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M069**

Lab Sample ID: 280-52990-5
Client Matrix: Water

Date Sampled: 03/07/2014 1135
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3347.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1438			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1438				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	55		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	21		0.15	1.0
trans-1,2-Dichloroethene	4.9		0.15	1.0
1,1-Dichloroethene	0.27	J	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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M069**

Lab Sample ID: 280-52990-5
Client Matrix: Water

Date Sampled: 03/07/2014 1135
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3347.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1438			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1438				

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	12		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)	103		70 - 127
Toluene-d8 (Surr)	84		80 - 125
4-Bromofluorobenzene (Surr)	108		78 - 120
Dibromofluoromethane (Surr)	103		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M38D**

Lab Sample ID: 280-52990-6
Client Matrix: Water

Date Sampled: 03/07/2014 0940
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3348.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1500			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1500				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	11		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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M38D**

Lab Sample ID: 280-52990-6
Client Matrix: Water

Date Sampled: 03/07/2014 0940
Date Received: 03/12/2014 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	MS3348.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1500			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1500				

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)	98		70 - 127
Toluene-d8 (Surr)	84		80 - 125
4-Bromofluorobenzene (Surr)	108		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M035**

Lab Sample ID: 280-52990-3
Client Matrix: Water

Date Sampled: 03/07/2014 0830
Date Received: 03/12/2014 0950

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-217082	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0716			Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				

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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Client Sample ID: **PIN20-M068**

Lab Sample ID: 280-52990-4
Client Matrix: Water

Date Sampled: 03/07/2014 1030
Date Received: 03/12/2014 0950

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-217082	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0725			Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Sodium	58000	B	92	1000

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

General Chemistry

Client Sample ID: **PIN20-M035**

Lab Sample ID: 280-52990-3
Client Matrix: Water

Date Sampled: 03/07/2014 0830
Date Received: 03/12/2014 0950

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
SGT-HEM (TRPH)	2.7	U	mg/L	2.7	6.0	1.0	1664A
Analysis Batch: 280-217691	Analysis Date: 03/20/2014 1505						
Prep Batch: 280-217578	Prep Date: 03/20/2014 0925						
Sulfate	220		mg/L	2.3	50	10	9056A
Analysis Batch: 280-218655	Analysis Date: 03/27/2014 2046						

General Chemistry

Client Sample ID: **PIN20-M068**

Lab Sample ID: 280-52990-4
Client Matrix: Water

Date Sampled: 03/07/2014 1030
Date Received: 03/12/2014 0950

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
SGT-HEM (TRPH)	2.8	U	mg/L	2.8	6.0	1.0	1664A
Analysis Batch: 280-217691	Analysis Date: 03/20/2014 1505						
Prep Batch: 280-217578	Prep Date: 03/20/2014 0925						
Sulfate	150		mg/L	1.2	25	5.0	9056A
Analysis Batch: 280-218655	Analysis Date: 03/27/2014 2102						

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

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
280-52990-1	PIN99-2457	92	94	88	102
280-52990-2	PIN20-2581	106	103	93	113
280-52990-3	PIN20-M035	104	101	93	112
280-52990-4	PIN20-M068	112	103	86	102
280-52990-5	PIN20-M069	103	103	84	108
280-52990-6	PIN20-M38D	100	98	84	108
MB 280-216810/5		102	101	91	112
LCS 280-216810/4		96	98	82	102
280-52990-3 MS	PIN20-M035 MS	94	93	81	98
280-52990-3 MSD	PIN20-M035 MSD	91	94	82	99

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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Method Blank - Batch: 280-216810

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-216810/5	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3339.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1122	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1122				
Leach Date:	N/A				

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

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Method Blank - Batch: 280-216810

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-216810/5	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3339.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1122	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1122				
Leach Date:	N/A				

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)	101	70 - 127
Toluene-d8 (Surr)	91	80 - 125
4-Bromofluorobenzene (Surr)	112	78 - 120
Dibromofluoromethane (Surr)	102	77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Lab Control Sample - Batch: 280-216810

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 280-216810/4	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3338.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1100	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1100				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	5.00	4.71	94	74 - 135	
Bromodichloromethane	5.00	4.54	91	73 - 135	
Carbon tetrachloride	5.00	4.91	98	67 - 135	
Chlorobenzene	5.00	4.63	93	76 - 135	
Chloroform	5.00	4.84	97	76 - 120	
1,3-Dichlorobenzene	5.00	4.59	92	74 - 135	
1,1-Dichloroethane	5.00	4.82	96	75 - 135	
trans-1,2-Dichloroethene	5.00	5.05	101	75 - 135	
1,1-Dichloroethene	5.00	4.69	94	71 - 136	
1,2-Dichloropropane	5.00	4.58	92	71 - 120	
Ethylbenzene	5.00	4.78	96	72 - 120	
Methylene Chloride	5.00	4.76	95	54 - 141	
Tetrachloroethene	5.00	4.34	87	70 - 135	
Toluene	5.00	5.19	104	73 - 120	
1,1,1-Trichloroethane	5.00	4.90	98	70 - 135	
Trichloroethene	5.00	4.71	94	73 - 135	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	70 - 127
Toluene-d8 (Surr)	82	80 - 125
4-Bromofluorobenzene (Surr)	102	78 - 120
Dibromofluoromethane (Surr)	96	77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-216810

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-52990-3	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3342.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1250			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1250				20 mL
Leach Date:	N/A				

MSD Lab Sample ID:	280-52990-3	Analysis Batch:	280-216810	Instrument ID:	VMS_MS1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	MS3343.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/14/2014 1311			Final Weight/Volume:	20 mL
Prep Date:	03/14/2014 1311				20 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	96	94	74 - 135	2	20		
Bromodichloromethane	88	86	73 - 135	2	20		
Carbon tetrachloride	101	103	67 - 135	2	21		
Chlorobenzene	91	92	76 - 135	1	20		
Chloroform	96	97	76 - 120	0	20		
1,3-Dichlorobenzene	92	92	74 - 135	0	20		
1,1-Dichloroethane	101	102	75 - 135	1	21		
trans-1,2-Dichloroethene	103	103	75 - 135	0	24		
1,1-Dichloroethene	98	96	71 - 136	2	20		
1,2-Dichloropropane	91	87	71 - 120	4	20		
Ethylbenzene	93	94	72 - 120	1	26		
Methylene Chloride	68	68	54 - 141	1	20		
Tetrachloroethene	91	93	70 - 135	2	20		
Toluene	100	99	73 - 120	1	20		
1,1,1-Trichloroethane	100	100	70 - 135	0	20		
Trichloroethene	92	92	73 - 135	0	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	94	70 - 127
Toluene-d8 (Surr)	81	82	80 - 125
4-Bromofluorobenzene (Surr)	98	99	78 - 120
Dibromofluoromethane (Surr)	94	91	77 - 120

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-216810

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-52990-3	Units:	ug/L	MSD Lab Sample ID:	280-52990-3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/14/2014 1250			Analysis Date:	03/14/2014 1311
Prep Date:	03/14/2014 1250			Prep Date:	03/14/2014 1311
Leach Date:	N/A			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	4.81	4.70
Bromodichloromethane	0.17	U	5.00	5.00	4.39	4.32
Carbon tetrachloride	0.19	U	5.00	5.00	5.07	5.16
Chlorobenzene	0.17	U	5.00	5.00	4.56	4.62
Chloroform	0.16	U	5.00	5.00	4.82	4.83
1,3-Dichlorobenzene	0.13	U	5.00	5.00	4.59	4.60
1,1-Dichloroethane	0.22	U	5.00	5.00	5.04	5.09
trans-1,2-Dichloroethene	0.39	J	5.00	5.00	5.54	5.56
1,1-Dichloroethene	0.23	U	5.00	5.00	4.88	4.79
1,2-Dichloropropane	0.18	U	5.00	5.00	4.54	4.36
Ethylbenzene	0.16	U	5.00	5.00	4.65	4.69
Methylene Chloride	0.32	U	5.00	5.00	3.41	3.38
Tetrachloroethene	0.20	U	5.00	5.00	4.54	4.64
Toluene	0.17	U	5.00	5.00	4.99	4.97
1,1,1-Trichloroethane	0.16	U	5.00	5.00	5.02	5.01
Trichloroethene	0.16	U	5.00	5.00	4.60	4.62

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Method Blank - Batch: 280-216692

Method: 6010B
Preparation: 3010A

Lab Sample ID:	MB 280-216692/1-A	Analysis Batch:	280-217082	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0705	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Sodium	99.8	J	92	1000

Lab Control Sample - Batch: 280-216692

Method: 6010B
Preparation: 3010A

Lab Sample ID:	LCS 280-216692/2-A	Analysis Batch:	280-217082	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0707	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sodium	50000	53500	107	90 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-216692

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	280-52990-3	Analysis Batch:	280-217082	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0720			Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				
Leach Date:	N/A				

MSD Lab Sample ID:	280-52990-3	Analysis Batch:	280-217082	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0723			Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Sodium	107	103	70 - 203	2	20		

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-216692

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	280-52990-3	Units: ug/L	MSD Lab Sample ID:	280-52990-3	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	03/15/2014 0720		Analysis Date:	03/15/2014 0723	
Prep Date:	03/13/2014 1300		Prep Date:	03/13/2014 1300	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Sodium	37000	50000	50000	90200	88500

Serial Dilution - Batch: 280-216692

Method: 6010B
Preparation: 3010A

Lab Sample ID:	280-52990-3	Analysis Batch:	280-217082	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-216692	Lab File ID:	25A6031414.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2014 0718	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	03/13/2014 1300				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Sodium	37000	36900	0.02	10	

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Method Blank - Batch: 280-217578

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-217578/1-A	Analysis Batch:	280-217691	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-217578	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/20/2014 1505	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/20/2014 0925				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
SGT-HEM (TRPH)	2.8	U	2.8	6.0

Matrix Spike - Batch: 280-217578

Method: 1664A
Preparation: 1664A

Lab Sample ID:	280-52990-3	Analysis Batch:	280-217691	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-217578	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1002 mL
Analysis Date:	03/20/2014 1505	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/20/2014 1235				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
SGT-HEM (TRPH)	2.7	U	20.0	2.8	0	64 - 132	U F1

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Method Blank - Batch: 280-218655

Method: 9056A
Preparation: N/A

Lab Sample ID:	MB 280-218655/13	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/27/2014 1706	Units:	mg/L	Final Weight/Volume:	10 mL
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: 280-218655

Method: 9056A
Preparation: N/A

Lab Sample ID:	MRL 280-218655/10	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/27/2014 1619	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	1.00	1.10	110	50 - 150	J

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-218655

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-218655/11	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/27/2014 1635	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-218655/12	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/27/2014 1651	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Sulfate	94	97	90 - 110	3	10		

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-218655

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-218655/11	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-218655/12
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/27/2014 1635			Analysis Date:	03/27/2014 1651
Prep Date:	N/A			Prep Date:	N/A
Leach 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	23.5	24.1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-218655

Method: 9056A
Preparation: N/A

MS Lab Sample ID:	280-52990-3	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/28/2014 0449			Final Weight/Volume:	10 mL
Prep Date:	N/A				5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-52990-3	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/28/2014 0504			Final Weight/Volume:	10 mL
Prep Date:	N/A				5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Sulfate	97	101	80 - 120	2	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-218655

Method: 9056A
Preparation: N/A

MS Lab Sample ID:	280-52990-3	Units:	mg/L	MSD Lab Sample ID:	280-52990-3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	10			Dilution:	10
Analysis Date:	03/28/2014 0449			Analysis Date:	03/28/2014 0504
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Sulfate	220	250	250	463	472

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

Duplicate - Batch: 280-218655

Method: 9056A
Preparation: N/A

Lab Sample ID:	280-52990-3	Analysis Batch:	280-218655	Instrument ID:	WC_IonChrom10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Info 2_DENPC179_Anions
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/28/2014 0433	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				5 uL
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfate	220	218	0.5	15	

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-216810					
LCS 280-216810/4	Lab Control Sample	T	Water	8260B	
MB 280-216810/5	Method Blank	T	Water	8260B	
280-52990-1	PIN99-2457	T	Water	8260B	
280-52990-2	PIN20-2581	T	Water	8260B	
280-52990-3	PIN20-M035	T	Water	8260B	
280-52990-3MS	Matrix Spike	T	Water	8260B	
280-52990-3MSD	Matrix Spike Duplicate	T	Water	8260B	
280-52990-4	PIN20-M068	T	Water	8260B	
280-52990-5	PIN20-M069	T	Water	8260B	
280-52990-6	PIN20-M38D	T	Water	8260B	

Report Basis
T = Total

Metals					
Prep Batch: 280-216692					
LCS 280-216692/2-A	Lab Control Sample	T	Water	3010A	
MB 280-216692/1-A	Method Blank	T	Water	3010A	
280-52990-3	PIN20-M035	T	Water	3010A	
280-52990-3MS	Matrix Spike	T	Water	3010A	
280-52990-3MSD	Matrix Spike Duplicate	T	Water	3010A	
280-52990-4	PIN20-M068	T	Water	3010A	
Analysis Batch:280-217082					
LCS 280-216692/2-A	Lab Control Sample	T	Water	6010B	280-216692
MB 280-216692/1-A	Method Blank	T	Water	6010B	280-216692
280-52990-3	PIN20-M035	T	Water	6010B	280-216692
280-52990-3MS	Matrix Spike	T	Water	6010B	280-216692
280-52990-3MSD	Matrix Spike Duplicate	T	Water	6010B	280-216692
280-52990-4	PIN20-M068	T	Water	6010B	280-216692

Report Basis
T = Total

Client: S.M. Stoller Corporation

Job Number: 280-52990-1
Sdg Number: 14025947

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-217578					
LCS 280-217578/2-A	Lab Control Sample	T	Water	1664A	
LCSD 280-217578/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-217578/1-A	Method Blank	T	Water	1664A	
280-52990-3	PIN20-M035	T	Water	1664A	
280-52990-3MS	Matrix Spike	T	Water	1664A	
280-52990-4	PIN20-M068	T	Water	1664A	
Analysis Batch:280-217691					
LCS 280-217578/2-A	Lab Control Sample	T	Water	1664A	280-217578
LCSD 280-217578/3-A	Lab Control Sample Duplicate	T	Water	1664A	280-217578
MB 280-217578/1-A	Method Blank	T	Water	1664A	280-217578
280-52990-3	PIN20-M035	T	Water	1664A	280-217578
280-52990-3MS	Matrix Spike	T	Water	1664A	280-217578
280-52990-4	PIN20-M068	T	Water	1664A	280-217578
Analysis Batch:280-218655					
LCS 280-218655/11	Lab Control Sample	T	Water	9056A	
LCSD 280-218655/12	Lab Control Sample Duplicate	T	Water	9056A	
MB 280-218655/13	Method Blank	T	Water	9056A	
280-52990-3	PIN20-M035	T	Water	9056A	
280-52990-3DU	Duplicate	T	Water	9056A	
280-52990-3MS	Matrix Spike	T	Water	9056A	
280-52990-3MSD	Matrix Spike Duplicate	T	Water	9056A	
280-52990-4	PIN20-M068	T	Water	9056A	

Report Basis
T = Total