



Mr. Jeffrey Crawford
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908-5767

Subject:

March 2014 Quarterly Monitoring Report for Springfield Street School Complex

Dear Mr. Crawford:

ARCADIS US, Inc. (ARCADIS) conducted quarterly monitoring of soil gas, indoor air, the cap, and the sub-slab ventilation system between March 19, 2014 and April 16, 2014. The monitoring was performed in accordance with the *Long-Term Operation and Maintenance Plan and Site Contingency Plan* (O&M Plan) contained in the *Remedial Action Work Plan* prepared by ATC dated April 2, 1999, revised May 3, 1999 and May 9, 1999. The *Remedial Action Work Plan* (RAWP) was approved by the Rhode Island Department of Environmental Management (RIDEM) in a letter dated June 4, 1999.

This work is subject to the Limitations contained in Attachment A. Results of monitoring are provided in the following sections and in the attachments.

COVER MONITORING

ARCADIS conducted a visual survey of the site on March 19, 2014 for evidence of significant soil cover erosion, or for any areas where the orange snow fencing indicator barrier was visible. ARCADIS observed one area where the orange indicator barrier was visible during this monitoring event. An area adjacent to the storm drain behind the Middle School had settled to the extent that the orange barrier was visible. The area was repaired and will be monitored to see if this recurs. Some settling was observed on the western side of the middle school. These areas have also been repaired.

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ENVIRONMENTAL

Date:

June 2, 2014

Contact:

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Our ref:

WK012152.0009

SUB-SLAB VENTILATION SYSTEM

Field Monitoring

The sub-slab ventilation system was inspected by ARCADIS during the quarterly monitoring on March 21, 2014. The two elementary school blowers and the two middle school blowers were operating normally upon arrival.

Samples of influent and effluent (before and after the carbon canisters) air were collected at each blower and screened for methane, carbon dioxide, oxygen, carbon monoxide, hydrogen sulfide, and organic vapors using a Landtec GEM2000 Plus and a MiniRae 2000. Results of screening are provided on Table 1. Methane, carbon monoxide, hydrogen sulfide and organic vapors were not detected in any of the samples. Carbon dioxide was detected at concentrations of 0.1 to 0.3% at each location; all seven of the sample concentrations were greater than the RAWP Action Level of 1000 ppm (0.1%).

Soil Gas Laboratory Results

Sub-slab soil gas samples were collected from the influent to each sub-slab ventilation system. The samples were collected in Tedlar bags and submitted to Con-Test Analytical Laboratories for analysis of volatile organic compounds (VOCs) by EPA method TO-14. Results of the analysis are summarized in Table 2, and the laboratory report is provided in Attachment B.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) are provided in Table 2 for comparison purposes even though they are not directly applicable to soil gas, because it does not represent exposure point concentrations. The PELs are the average concentrations that OSHA allows to be present in a workplace without any respiratory protection or exposure controls. The concentrations detected in soil gas were well below the OSHA PELs.

INDOOR AIR MONITORING

Indoor air monitoring was conducted on March 19, 2014 using a Landtec GEM 2000 Plus meter (methane, hydrogen sulfide, oxygen), a Mini Rae photoionization detector (organic vapors), and a Fluke 975 Airmeter (carbon dioxide, carbon monoxide). School was in session during the monitoring event. Results of monitoring are provided in the Table 3. Carbon dioxide measurements were made with a Fluke 975 Airmeter indoor air quality meter. The Fluke 975 has a range of 0 to 5,000 ppm, with a resolution of 1 ppm.

The outside temperature on March, 2013 was 45 °F. Carbon dioxide was measured outside in the school parking lot at 560 ppm.

All readings were below the RAWP Action Level of 1,000 ppm, except for two carbon dioxide readings at a concentration of 1011 and 1017 ppm in the elementary school elevator shaft and middle school gym, respectfully. The RAWP action level for carbon dioxide is 1000 ppm (1%). As noted below, these readings are within the expected range for indoor air levels of carbon dioxide in an occupied building. Methane, carbon monoxide, hydrogen sulfide, and organic vapors were not detected.

Concentrations of carbon dioxide inside occupied buildings are expected to be higher than the concentrations in outdoor air because the building occupants expel carbon dioxide. Therefore, in indoor air, the concentration of carbon dioxide is typically used as an indicator of the effectiveness of the heating, ventilating, and air conditioning (HVAC) system in circulating outdoor air into the building. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have prepared ASHRAE Standard 62.1-2007 titled *Ventilation for Acceptable Indoor Air Quality*. The purpose of the Standard is to specify minimum ventilation rates and other measures to provide indoor air quality that is acceptable to human occupants and that minimize adverse health effects. A discussion regarding carbon dioxide concentrations in indoor air contained in Informative Appendix C of the Standard states: "... maintaining a steady-state CO₂ concentration in a space of no greater than about 700 ppm above outdoor air levels will indicate that a substantial majority of visitors entering a space will be satisfied with respect to human bioeffluents (body odor)." This is the basis for ASHRAE's recommendations for concentrations of carbon dioxide in indoor air. The average concentrations measured inside the site buildings were less than 700 ppm above the ambient outdoor concentrations.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for carbon dioxide in the workplace is 5,000 ppm. All readings were below this concentration.

The control panels for the methane monitors at both schools were inspected on March 19, 2014. The methane monitor control panels had stickers that indicated that the monitors were calibrated by Diamond Technical Services within the month prior to the inspection. Diamond Technical Services calibrates the sensors on a monthly basis.

Calibration Certificates from Diamond Calibration indicate that many of the sensors read above 0 when calibrated to the zero gas. This prevents the sensors from giving a fault alarm if the reading drops below zero due to a sudden temperature change,

and still provides a conservative measure of protection because the alarm limit does not change.

GROUNDWATER MONITORING

The groundwater monitoring wells were sampled by ARCADIS on March 24, 2014. Prior to sampling, the depth to water was gauged, and a volume of water equivalent to approximately three well volumes was removed from the well. Groundwater samples were collected in laboratory prepared sample jars and delivered under chain-of-custody protocol to Contest Laboratory in East Longmeadow, Massachusetts for analysis for volatile organic compounds by EPA method 8260. The laboratory report is provided as Attachment B. Results of analysis of groundwater samples are summarized in Table 4.

The only target analytes detected in any of the wells was 1,4-dichlorobenzene which was detected in a sample collected from monitoring well ATC-4 at concentrations of 1.6 ug/L. There is no GB groundwater standard for 1,4-dichlorobenzene. This compound has been detected during many previous sampling events in this well at a similar concentration. No other target analytes were detected in any of the groundwater samples collected on March 24, 2014.

SOIL GAS MONITORING

Soil gas monitoring was conducted at 29 locations on March 21, 2014. The sampling was conducted by placing an air sampling gripper cap on each well and attaching a piece of tubing. A volume of air equivalent to approximately 3 well volumes was removed from each well using a Sensidyne BDXII air sampling pump. Soil gas was then screened using a Landtec GEM 2000 Plus Landfill Gas Analyzer and a MiniRae Photoionization Detector (PID).

Soil Gas Field Monitoring Results

Soil gas samples were screened for methane, carbon monoxide, hydrogen sulfide, carbon dioxide, oxygen, and total VOCs. Soil gas survey results are provided in Table 5. Carbon monoxide, hydrogen sulfide, and total VOCs were not detected in any samples.

Methane was detected in soil gas from MPL-7 at a concentration of 1.8% on March 21, 2014. A subsequent monitoring event on March 24, 2014 of MPL-7 and adjacent wells detected methane in MPL-6 at a concentration of 3.1%. The Remedial Action

Work Plan Action level for methane is 0.5%. Jeffery Crawford of RI-DEM and Allen Sepe of Providence Schools were notified, per the requirements of the RAWP. MPL-6 and MPL-7 are located on the northern end of the property, adjacent to Hartford Avenue and the middle school parking lot. This location had been affected by a natural gas leak in Hartford Avenue in the past. ARCADIS continued to monitor MPL-6 and MPL-7 subsequent to the quarterly monitoring event. The results of these monitoring events are summarized in the table below:

Well ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)
RAWP Action Level	N/A	0.5	0.1	N/A
MPL-6	3/21/14	0.0	6.2	7.9
	3/24/14	3.1	8.4	0.3
	3/28/14	2.7	8.1	0.2
	4/4/14	3.8	7.2	0.4
	4/16/14	1.5	7.8	0.0
	5/29/14	0.0	10.5	1.9
MPL-7	3/21/14	1.8	7.7	0.5
	3/24/14	0.4	7.8	3.9
	3/28/14	0.7	7.8	1.3
	4/4/14	1.1	7.2	0.1
	4/16/14	1.2	6.4	1.9
	5/29/14	0.0	11.2	0.4

As shown in the table above, the most recent readings in May 2014 did not detect methane in the soil gas from MPL-6 and MPL-7.

Carbon dioxide was detected in soil gas at concentrations ranging from 0.1% to 7.7% during the March monitoring event. The carbon dioxide Remedial Action Work Plan Action Level of 0.1% was exceeded at every monitoring point. The maximum concentration detected during the December 2013 monitoring round was 7.7%, which was lower than the maximum detected during the December 2013 round of 10.8%. This is consistent with the pattern shown during previous rounds of declining carbon dioxide concentrations in the winter, and increasing concentrations in the summer and early fall. Graphs depicting carbon dioxide, oxygen, and methane concentrations over time for selected representative wells are presented in Attachment C.

The presence of carbon dioxide in soil gas is an indicator of subsurface bacterial activity and does not represent a threat to users of the property. The highest concentration of carbon dioxide was found in well MPL-7, located on the northern end of the property near Hartford Avenue. The monitoring locations on the northern end of the property adjacent to large expanses of paved parking lot, sidewalk, and streets have typically had the highest carbon dioxide concentrations.

ANNUAL ELUR INSPECTIONS

After the Five Year Review of the Site was completed, RIDEM issued a letter dated August 17, 2012 which requires, among other things, that annual inspections be conducted for compliance with the Environmental Land Usage Restriction (ELUR). The Annual ELUR inspection was conducted during the December 2013 monitoring round.

Annual monitoring of the vacuum produced by the subslab ventilation system, as required by the August 17, 2012 letter, will be conducted during the next monitoring round since weather conditions were not favorable during the March 2014 monitoring event.

CONCLUSIONS

Methane was detected above the RAWP action levels on March 21, 2014 in MPL-7 and on March 24, 2014 in MPL-6. These two wells were monitored following the monitoring event. During the most recent monitoring event in May 2014, methane was not detected in the wells.

Hydrogen sulfide, carbon monoxide and organic vapor concentrations did not exceed RAWP action levels in any soil gas or indoor air samples. Carbon dioxide concentrations exceeded the action level at 29 soil gas locations, sub slab system monitoring points, and at two indoor air monitoring location. The detection of carbon dioxide in soil gas is typical of what has been detected during previous monitoring events and appears to be a result of naturally occurring bacterial activity in the subsurface. The detections inside the site buildings were only slightly above the action level of 1,000 ppm, and are within the range of carbon concentrations expected in occupied buildings.

If you have any questions or require any additional information, please contact the undersigned at 401-738-3887, extension 25.

Sincerely,

ARCADIS U.S., Inc.

A handwritten signature in black ink, appearing to read "Donna H. Pallister". The signature is fluid and cursive, with a long horizontal stroke at the end.

Donna H. Pallister, PE, LSP
Senior Environmental Engineer

Copies:

A. Sepe, City of Providence
Providence Public Building Authority

ARCADIS

Tables

Table 1
System Monitoring Notes
Springfield Street School Complex
Providence, Rhode Island
March 24, 2014

Monitoring Location	Methane % by volume Landtec	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
Elementary School inlet 1	0.0	0.3	21.4	0	0	0.0
Elementary School inlet 2	0.0	0.3	21.5	0	0	0.0
Elementary School Outlet	0.0	0.2	21.6	0	0	0.0
Middle School front shed inlet	0.0	0.1	20.9	0	0	0.0
Middle School front shed after 2 nd carbon	0.0	0.1	20.7	0	0	0.0
Middle School back shed inlet	0.0	0.1	20.6	0	0	0.0
Middle School back shed after 2 nd carbon	0.0	0.1	20.7	0	0	0.0
Remedial Action Work Plan Action Levels	0.5	1,000 ppm (0.1%)	NA	9 ppm	10 ppm	5 ppm

Measurements made with: Landtec GEM2000 Plus, MiniRae 2000

Sampling date: March 24, 2014

Measured by: Andrew DaSilva

Table 2
Soil Gas Samples Collected from System Influent
Springfield Street School Complex

Parameter	Sample Date	CT DEP Proposed Residential Volatilization Criteria For Soil Vapor (ug/m3)*	OSHA PEL's (ug/m3)	Middle School Back (ug/m3)	Middle School Front (ug/m3)	Elementary School #1 (ug/m3)	Elementary School #2 (ug/m3)
Benzene	8/23/2012	3,247	3,000	0.87	1	0.7	0.7
	1/4/2013			0.2	0.26	0.37	0.33
	3/20/2013			ND	0.44	0.57	0.54
	6/6/13 and 6/11/13			2.2	2.2	1.7	0.76
	9/11/2013			0.51	0.47	0.49	0.43
	12/10/2013			0.14	0.12	0.2	0.2
	3/24/2014			0.57	0.63	0.72	0.68
Carbon Tetrachloride	8/23/2012	6,395	62,900	ND	ND	0.65	ND
	1/4/2013			ND	ND	ND	ND
	3/20/2013			ND	ND	ND	ND
	6/6/13 and 6/11/13			ND	ND	ND	ND
	9/11/2013			ND	ND	ND	ND
	12/10/2013			ND	ND	ND	ND
	3/24/2014			ND	ND	ND	ND
Chloroform	8/23/2012	22,334	240,000	ND	ND	1.7	1.7
	1/4/2013			0.26	ND	0.51	0.58
	3/20/2013			ND	ND	0.6	0.6
	6/6/13 and 6/11/13			ND	ND	2.1	1.7
	9/11/2013			1.3	ND	1.9	2.1
	12/10/2013			ND	0.15	0.36	0.39
	3/24/2014			ND	ND	0.76	0.75
Chloromethane	8/23/2012	NA	207,000	ND	2	ND	ND
	1/4/2013			0.18	0.23	ND	ND
	3/20/2013			ND	ND	ND	ND
	6/6/13 and 6/11/13			ND	1.2	ND	ND
	9/11/2013			ND	ND	ND	ND
	12/10/2013			0.25	ND	ND	ND
	3/24/2014			ND	0.44	ND	ND
1,4-Dichlorobenzene	8/23/2012	5,805,840	450,000	1.9	ND	1.9	ND
	1/4/2013			ND	ND	ND	ND
	3/20/2013			ND	ND	ND	ND
	6/6/13 and 6/11/13			ND	ND	ND	ND
	9/11/2013			ND	ND	ND	ND
	12/10/2013			ND	ND	ND	ND
	3/24/2014			ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	8/23/2012	NA	4,950,000	7	2.3	11	6.6
	1/4/2013			2.6	1.7	2.6	3.5
	3/20/2013			3.2	2.6	3	3
	6/6/13 and 6/11/13			5.5	2.5	4.4	3.9
	9/11/2013			10	4.6	3.6	3.9
	12/10/2013			1.2	2.8	1.2	1.2
	3/24/2014			4.4	2.6	3.1	3.1
trans- 1,3- Dichloropropene	8/23/2012	4,613	5,000	ND	ND	ND	0.61
	1/4/2013			ND	ND	ND	ND
	3/20/2013			ND	ND	ND	ND
	6/6/13 and 6/11/13			ND	ND	ND	ND
	9/11/2013			ND	ND	ND	ND
	12/10/2013			ND	ND	ND	ND
	3/24/2014			ND	ND	ND	ND
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	8/23/2012	NA	7,000,000	17	0.78	20	2
	1/4/2013			2.7	1.3	1.7	0.83
	3/20/2013			6.4	1.7	1.2	1.2
	6/6/13 and 6/11/13			7.6	ND	1.1	0.98
	9/11/2013			16	6.1	2	2.2
	12/10/2013			0.71	2.7	0.33	0.32
	3/24/2014			4.2	1.1	0.75	0.75
Ethylbenzene	8/23/2012	7,281,812	435,000	0.49	ND	0.49	ND
	1/4/2013			1.2	1.3	1.6	1
	3/20/2013			3	2.1	2.4	2
	6/6/13 and 6/11/13			0.95	1.2	0.87	0.44
	9/11/2013			ND	ND	ND	ND
	12/10/2013			0.17	0.16	0.19	0.21
	3/24/2014			0.70	0.70	0.77	0.66
Methylene Chloride	8/23/2012	4,237,289	86,750	19	52	18	46
	1/4/2013			5.8	6.8	10	5.9
	3/20/2013			55	33	29	36
	6/6/13 and 6/11/13			38	42	49	24
	9/11/2013			34	32	35	29
	12/10/2013			2.3	2.2	2.4	2.7
	3/24/2014			6.6	5.5	6.6	6.2
Styrene	8/23/2012	34,633	456,000	27	6.6	28	6.7
	1/4/2013			6.8	7.4	7.2	5.3
	3/20/2013			6.8	7.1	9.7	9.2
	6/6/13 and 6/11/13			2.1	1.9	2.3	1.2
	9/11/2013			0.82	0.95	0.89	0.97
	12/10/2013			0.29	0.25	0.3	0.29
	3/24/2014			0.49	0.49	ND	0.48
Tetrachloroethylene	8/23/2012	75,840	678,000	1.4	ND	29	3.6
	1/4/2013			2.9	3.1	8.6	3.3
	3/20/2013			8.9	5.7	5.5	7.7
	6/6/13 and 6/11/13			2.8	ND	3	8.1
	9/11/2013			8.2	5.5	7.9	7.4
	12/10/2013			1.1	1.4	1.1	1.5
	3/24/2014			3.6	2.3	3.3	2.9
Toluene	8/23/2012	2,910,779	750,000	280	150	300	140
	1/4/2013			31	41	44	25
	3/20/2013			45	32	50	48
	6/6/13 and 6/11/13			63	59	71	16
	9/11/2013			3.8	4.3	4.1	3.9
	12/10/2013			4.6	3.4	4	3.9
	3/24/2014			4.5	4.7	4.7	5.3
Trichloroethylene	8/23/2012	38,237	537,000	ND	ND	4.5	0.63
	1/4/2013			1	1.3	3.7	1.3
	3/20/2013			7	3.1	2.9	3.9
	6/6/13 and 6/11/13			ND	ND	ND	3.2
	9/11/2013			2.1	1.4	1.9	1.6
	12/10/2013			ND	0.11	0.12	0.15
	3/24/2014			ND	ND	0.62	0.56
Trichlorofluoromethane (Freon 11)	8/23/2012	NA	5,600,000	8.5	8	17	14
	1/4/2013			1.6	1.1	1.2	0.18
	3/20/2013			3	2.1	2	1.9
	6/6/13 and 6/11/13			4.4	3.4	9.6	6.7
	9/11/2013			10	11	8.3	7.3
	12/10/2013			1.1	1.2	1.1	0.76
	3/24/2014			3.2	2.4	2.8	2.8
1,2,4-Trimethylbenzene	8/23/2012	NA	125,000	ND	ND	ND	ND
	1/4/2013			ND	ND	ND	ND
	3/20/2013			ND	ND	ND	ND
	6/6/13 and 6/11/13			ND	1	ND	ND
	9/11/2013			ND	ND	0.71	0.63
	12/10/2013			ND	ND	ND	ND
	3/24/2014			ND	0.11	ND	ND
M/p-Xylene	8/23/2012	2,215,755#	435,000	1.2	0.9	1.1	ND
	1/4/2013			6	6.3	7.1	4.3
	3/20/2013			11	8.7	9.7	8.1
	6/6/13 and 6/11/13			3.2	3.8	2.8	2.2
	9/11/2013			1.1	1.1	1.1	1.1
	12/10/2013			0.9	0.89	0.93	1.1
	3/24/2014			2.9	3.2	3.3	2.9
o-Xylene	8/23/2012	2,215,755#	435,000	0.45	ND	0.45	ND
	1/4/2013			1.3	1.4	1.4	0.88
	3/20/2013			3.5	2.8	3.2	2.7
	6/6/13 and 6/11/13			1.2	1.4	1.1	0.83
	9/11/2013			ND	0.46	0.45	ND
	12/10/2013			0.28	0.3	0.32	0.36
	3/24/2014			1.4	1.4	1.4	1.2

Notes:

Samples collected in Tedlar bags and analyzed via EPA method TO-14
 Only detected compounds are listed, see laboratory certificate for complete list of analyses
 OSHA PEL's = Occupational Safety and Health Administration Permissible Exposure Limits
 CT DEP= Connecticut Department of Environmental Protection
 ug/m3 = micrograms per cubic meter
 * From Appendix F to Sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies
 #- Represents Total Xylenes

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
Providence, Rhode Island
March 19, 2014

Monitoring Location	Methane as % LEL	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
E.S. Front office	0.0	644	20.9	0	0	0.0
E.S. Elevator	0.0	1011	21.0	0	0	0.0
E.S. Faculty Work Room	0.0	696	21.1	0	0	0.0
E.S. Gym	0.0	732	21.1	0	0	0.0
E.S. Stairway B	0.0	577	21.1	0	0	0.0
E.S. Stairway C	0.0	653	21.1	0	0	0.0
E.S. Library	0.0	581	21.1	0	0	0.0
E.S. Front Stairs	0.0	656	21.1	0	0	0.0
E.S. Cafeteria	0.0	870	21.1	0	0	0.0
E.S. Hall Near Gym	0.0	768	21.1	0	0	0.0
E.S. Electricity Closet	0.0	801	21.1	0	0	0.0

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
March 19, 2014

Monitoring Location	Methane as % LEL	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
M.S. Front Office	0.0	858	20.8	0	0	0.0
M.S. Elevator	0.0	854	20.9	0	0	0.0
M.S. Stairway near Elem. School GS-01	0.0	709	20.9	0	0	0.0
M.S.-GS-02	0.0	738	20.9	0	0	0.0
M.S. Sensor #16 - outside cafeteria	0.0	760	21.0	0	0	0.0
M.S. Faculty Room	0.0	702	21.0	0	0	0.0
M.S. Sensor #15 Outside Gym	0.0	798	21.0	0	0	0.0
M.S. GS-03 Near Boys Bathroom	0.0	648	20.9	0	0	0.0
M.S. Second Floor -Library	0.0	785	21.0	0	0	0.0
M.S. Janitor Office	0.0	569	21.0	0	0	0.0
M.S. Cafeteria	0.0	897	21.0	0	0	0.0
M.S. GS-13 Gym	0.0	1017	21.0	0	0	0.0
M.S. Janitor Closet	0.0	603	20.9	0	0	0.0

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
March 19, 2014

Monitoring Location	Methane as % LEL	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
M.S. Front Hall near sensor #4	0.0	610	20.9	0	0	0.0
M.S. Hallway across from elevator near sensor #9	0.0	565	20.9	0	0	0.0
M.S. Near sensor GS 06 hallway right end	0.0	772	20.9	0	0	0.0
M.S. stairway near Hartford Ave. sensor GS-7	0.0	790	20.9	0	0	0.0
Remedial Action Work Plan Action Levels	0.5 (500 ppm)	1,000 ppm (0.1%)	NA	9 ppm	5 ppm	5 ppm

Notes:

E.S. indicates Elementary School, **M.S.** indicates Middle School

Measurements made with: MiniRae photoionization detector, Fluke 975 Airmeter, Landtec Gem 2000 Plus
 PPM = Parts per million

Outdoor conditions: Carbon dioxide = 560 ppm Temperature = 45 degrees F

**Table 4
Groundwater Monitoring Results
Springfield Street School
Providence, Rhode Island**

Well ID	Detected Compounds	Sampling Dates and Results in ug/L																	RIDEM GB Groundwater Objective
		3/1/2010	5/20/2010	8/25/2010	11/19/2010	2/24/2011	6/16/2011	10/3/2011	12/6/2011	3/15/2012	5/29/2012	8/21/2012	12/19/2012	3/21/2013	6/6/2013	9/11/2013	12/10/2013	3/24/2014	
ATC-1	Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140
	n-butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1600
	Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5000
	Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	540
	Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1700
	1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
ATC-2	Chloroform	NS	NS	NS	NS	NS	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	NA
MW-6	Chloroform						ND	2.0	ND	ND	ND	2.2	ND	ND	2.9	2.5	NS	ND	NA
	Installed 4/2011																		
ATC-3	Toluene	NS	NS	NS	NS	NS	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	1700
MW-7							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Installed 4/2011																		
ATC-4	Benzene	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140
	Chlorobenzene	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	70
	1,4-dichlorobenzene	ND	ND	ND	1.5	NS	NS	ND	ND	ND	1.9	ND	2.1	1.2	1.7	1.8	2.3	1.6	NA
	MTBE	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5000
	1,2,4-Trimethylbenzene	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	tert-Amyl Methyl Ether (TAME)	ND	ND	0.5	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Trichloroethylene	ND	ND	ND	ND	NS	NS	1.1	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	540
ATC-5	MTBE	ND	ND	NS	NS	NS	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	5000
	Chloroform	ND	ND	NS	NS	NS	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	NA
MW-8							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Installed 4/2011																		
	Sampled By:	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	

ND = not detected above method detection limit
NS = not sampled
NA = No applicable standard published
MTBE = Methyl tert-Butyl Ether
µg/L = micrograms per liter

Table 5
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
March 21, 2014

Monitoring Well	Methane % by volume	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
WB-1	0.0	1.1	20.2	0	0	0.0
WB-2	0.0	0.3	21.4	0	0	0.0
WB-3	0.0	0.1	21.6	0	0	0.0
WB-4	0.0	0.1	21.6	0	0	0.0
WB-5	0.0	0.2	21.5	0	0	0.0
WB-6	0.0	0.1	21.4	0	0	0.0
WB-7 R	0.0	0.2	21.3	0	0	0.0
WB-8	0.0	0.5	21.0	0	0	0.0
WB-12	0.0	0.6	20.9	0	0	0.0
WB-13	0.0	0.7	20.5	0	0	0.0
WB-14	0.0	0.1	21.3	0	0	0.0
WB-15	0.0	0.1	21.2	0	0	0.0
EPL-1	0.0	0.1	21.0	0	0	0.0
EPL-2	0.0	0.1	21.1	0	0	0.0
EPL-3	0.0	0.1	21.3	0	0	0.0
EPL-4	0.0	1.2	19.9	0	0	0.0
EPL-5	0.0	0.5	21.1	0	0	0.0
ENE-1	0.0	0.7	20.4	0	0	0.0

Table 5
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
March 21, 2014

Monitoring Well	Methane % by volume	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
MG1	0.0	2.8	18.9	0	0	0.0
MG2	0.0	0.5	20.9	0	0	0.0
MG3	0.0	1.2	20.3	0	0	0.0
MG4	0.0	0.3	21.0	0	0	0.0
MG5	0.0	0.3	21.0	0	0	0.0
MPL2	0.0	1.1	20.1	0	0	0.0
MPL3	0.0	2.3	18.4	0	0	0.0
MPL5	0.0	4.3	16.6	0	0	0.0
MPL6	0.0	6.2	7.9	0	0	0.0
MPL7	1.8	7.7	0.5	0	0	0.0
MPL8	0.0	1.0	20.1	0	0	0.0
Remedial Action Work Plan Action Levels	0.5%	0.1% (1,000 PPM)	NA	9 PPM	5 PPM	5 PPM

Sampled by: Andrew DaSilva

Weather Conditions: Cloudy, 47 degrees Fahrenheit

Sampling Equipment: Landtec GEM 2000 Plus, MiniRae 2000 PID














Figure

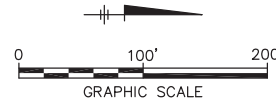
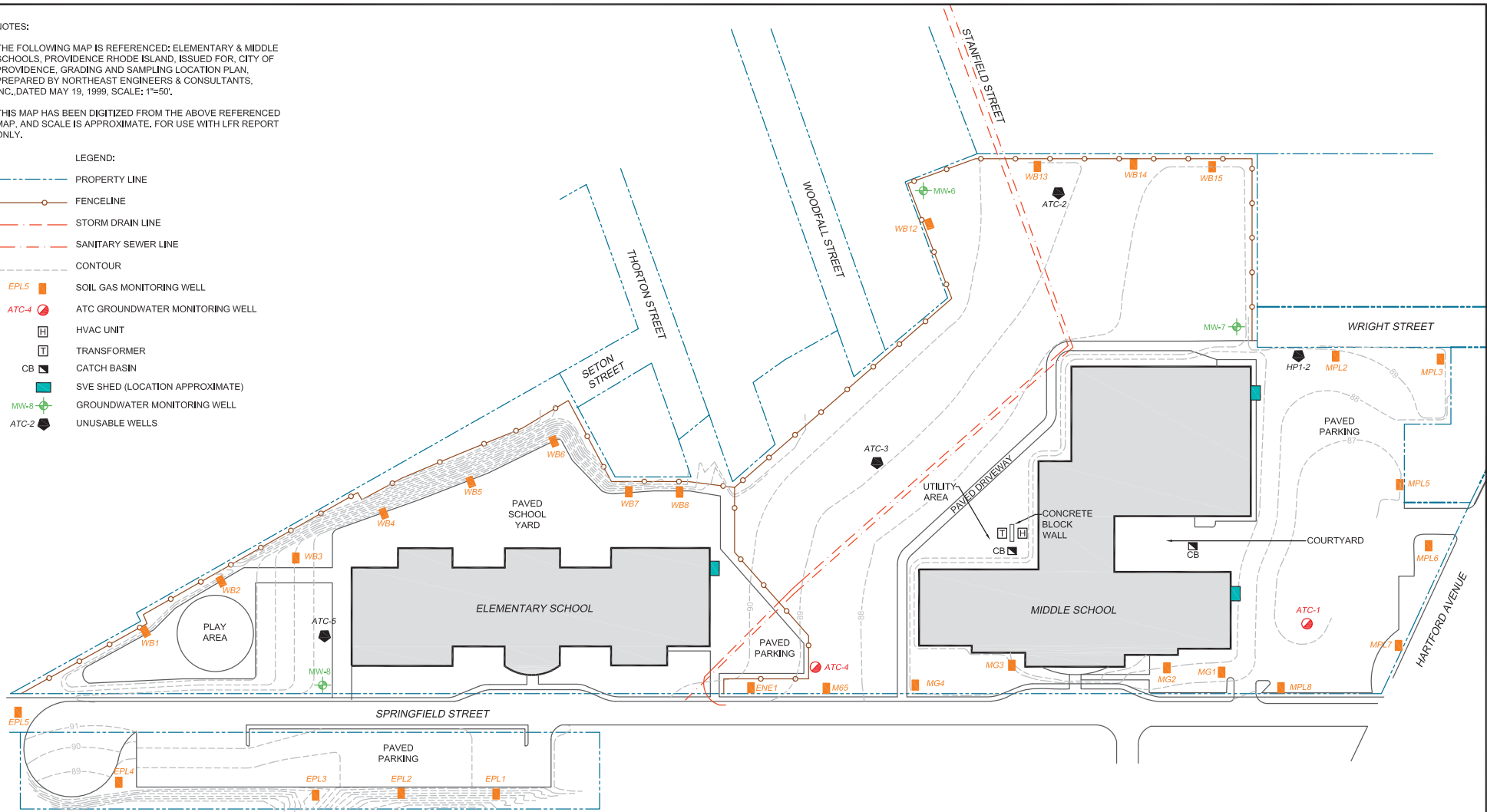
NOTES:

THE FOLLOWING MAP IS REFERENCED: ELEMENTARY & MIDDLE SCHOOLS, PROVIDENCE RHODE ISLAND, ISSUED FOR, CITY OF PROVIDENCE, GRADING AND SAMPLING LOCATION PLAN, PREPARED BY NORTHEAST ENGINEERS & CONSULTANTS, INC., DATED MAY 19, 1999, SCALE: 1"=50',

THIS MAP HAS BEEN DIGITIZED FROM THE ABOVE REFERENCED MAP, AND SCALE IS APPROXIMATE, FOR USE WITH LFR REPORT ONLY.

LEGEND:

-  PROPERTY LINE
-  FENCELINE
-  STORM DRAIN LINE
-  SANITARY SEWER LINE
-  CONTOUR
-  EPL5 SOIL GAS MONITORING WELL
-  ATC-4 ATC GROUNDWATER MONITORING WELL
-  HVAC UNIT
-  TRANSFORMER
-  CB CATCH BASIN
-  SVE SHED (LOCATION APPROXIMATE)
-  MW-8 GROUNDWATER MONITORING WELL
-  ATC-2 UNUSABLE WELLS



SPRINGFIELD STREET SCHOOL COMPLEX SPRINGFIELD STREET PROVIDENCE, RHODE ISLAND	
SITE PLAN	
	FIGURE 2

CITY: MANCHESTER, CT; DWG GROUP: ENVCAD; DE: B. SMALL; PK: TRK; G:\ENVCAD\manchester\ACT1\W01215200\07\1\W01215200\07.dwg; LAYOUT: 2; SAVED: 7/26/2011 2:12 PM; ACADVER: 16.15 (LMS TECH); PAGESETUP: 1; PLOTTED: 11/11/2011 8:17 AM; BY: SMALL; BRNN

Appendix A
Limitations & Service Constraints

LIMITATIONS AND SERVICE CONSTRAINTS

GENERAL REPORTS/DOCUMENT

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when ARCADIS' investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. ARCADIS's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100% confidence in environmental investigation conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

Appendix B
Laboratory Results

April 1, 2014

Donna Pallister
Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886

Project Location: Springfield St., Providence, RI
Client Job Number:
Project Number: WK0121520009
Laboratory Work Order Number: 14C0746

Enclosed are results of analyses for samples received by the laboratory on March 25, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa A. Worthington
Project Manager



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886
ATTN: Donna Pallister

REPORT DATE: 4/1/2014

PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER: WK0121520009

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14C0746

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Springfield St., Providence, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-7	14C0746-01	Ground Water		SW-846 8260C	
MW-6	14C0746-02	Ground Water		SW-846 8260C	
ATC-4	14C0746-03	Ground Water		SW-846 8260C	
MW-8	14C0746-04	Ground Water		SW-846 8260C	
ATC-1	14C0746-05	Ground Water		SW-846 8260C	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8260C

Qualifications:

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

Analyte & Samples(s) Qualified:

1,4-Dioxane

B092583-BS1, B092583-BSD1

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:

1,4-Dioxane, tert-Butyl Alcohol (TBA), Tetrahydrofuran

14C0746-01[MW-7], 14C0746-02[MW-6], 14C0746-03[ATC-4], 14C0746-04[MW-8], 14C0746-05[ATC-1], B092583-BLK1, B092583-BS1, B092583-BSD1

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

1,4-Dioxane, 2-Hexanone (MBK), 4-Methyl-2-pentanone (MIBK), Tetrahydrofuran

B092583-BS1, B092583-BSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson
Laboratory Director

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: MW-7

Sampled: 3/24/2014 09:00

Sample ID: 14C0746-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 5:31	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: MW-7

Sampled: 3/24/2014 09:00

Sample ID: 14C0746-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:31	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	102	70-130	3/27/14 5:31
Toluene-d8	104	70-130	3/27/14 5:31
4-Bromofluorobenzene	97.5	70-130	3/27/14 5:31

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: MW-6

Sampled: 3/24/2014 09:35

Sample ID: 14C0746-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 5:58	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: MW-6

Sampled: 3/24/2014 09:35

Sample ID: 14C0746-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 5:58	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	95.2	70-130	

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: ATC-4

Sampled: 3/24/2014 10:30

Sample ID: 14C0746-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 6:24	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,4-Dichlorobenzene	1.6	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: ATC-4

Sampled: 3/24/2014 10:30

Sample ID: 14C0746-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:24	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	98.0	70-130	

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: MW-8

Sampled: 3/24/2014 11:30

Sample ID: 14C0746-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 6:51	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: MW-8

Sampled: 3/24/2014 11:30

Sample ID: 14C0746-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 6:51	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	103	70-130	3/27/14 6:51
Toluene-d8	101	70-130	3/27/14 6:51
4-Bromofluorobenzene	96.8	70-130	3/27/14 6:51

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: ATC-1

Sampled: 3/24/2014 13:15

Sample ID: 14C0746-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 7:18	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH

Project Location: Springfield St., Providence, RI

Sample Description:

Work Order: 14C0746

Date Received: 3/25/2014

Field Sample #: ATC-1

Sampled: 3/24/2014 13:15

Sample ID: 14C0746-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	3/26/14	3/27/14 7:18	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	97.1	70-130	

Sample Extraction Data

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
14C0746-01 [MW-7]	B092583	5	5.00	03/26/14
14C0746-02 [MW-6]	B092583	5	5.00	03/26/14
14C0746-03 [ATC-4]	B092583	5	5.00	03/26/14
14C0746-04 [MW-8]	B092583	5	5.00	03/26/14
14C0746-05 [ATC-1]	B092583	5	5.00	03/26/14

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B092583 - SW-846 5030B

Blank (B092583-BLK1)

Prepared: 03/26/14 Analyzed: 03/27/14

Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							V-16
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	4.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	5.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							V-16
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.50	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B092583 - SW-846 5030B

Blank (B092583-BLK1)

Prepared: 03/26/14 Analyzed: 03/27/14

Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							V-16
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	26.2		µg/L	25.0		105	70-130			
Surrogate: Toluene-d8	25.7		µg/L	25.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	24.4		µg/L	25.0		97.8	70-130			

LCS (B092583-BS1)

Prepared: 03/26/14 Analyzed: 03/27/14

Acetone	88.4	50	µg/L	100		88.4	70-160			†
Acrylonitrile	8.88	5.0	µg/L	10.0		88.8	70-130			
tert-Amyl Methyl Ether (TAME)	9.12	0.50	µg/L	10.0		91.2	70-130			
Benzene	10.1	1.0	µg/L	10.0		101	70-130			
Bromobenzene	9.33	1.0	µg/L	10.0		93.3	70-130			
Bromochloromethane	11.2	1.0	µg/L	10.0		112	70-130			
Bromodichloromethane	9.50	0.50	µg/L	10.0		95.0	70-130			
Bromoform	10.7	1.0	µg/L	10.0		107	70-130			
Bromomethane	4.83	2.0	µg/L	10.0		48.3	40-160			†
2-Butanone (MEK)	101	20	µg/L	100		101	40-160			†
tert-Butyl Alcohol (TBA)	87.9	20	µg/L	100		87.9	40-160			V-16 †
n-Butylbenzene	9.60	1.0	µg/L	10.0		96.0	70-130			
sec-Butylbenzene	9.34	1.0	µg/L	10.0		93.4	70-130			
tert-Butylbenzene	9.24	1.0	µg/L	10.0		92.4	70-130			
tert-Butyl Ethyl Ether (TBEE)	10.2	0.50	µg/L	10.0		102	70-130			
Carbon Disulfide	9.04	4.0	µg/L	10.0		90.4	70-130			
Carbon Tetrachloride	10.1	5.0	µg/L	10.0		101	70-130			
Chlorobenzene	8.85	1.0	µg/L	10.0		88.5	70-130			
Chlorodibromomethane	8.79	0.50	µg/L	10.0		87.9	70-130			
Chloroethane	9.24	2.0	µg/L	10.0		92.4	70-130			
Chloroform	9.78	2.0	µg/L	10.0		97.8	70-130			
Chloromethane	6.64	2.0	µg/L	10.0		66.4	40-160			†
2-Chlorotoluene	8.21	1.0	µg/L	10.0		82.1	70-130			

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B092583 - SW-846 5030B										
LCS (B092583-BS1)										
					Prepared: 03/26/14 Analyzed: 03/27/14					
4-Chlorotoluene	9.02	1.0	µg/L	10.0		90.2	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	10.0	5.0	µg/L	10.0		100	70-130			
1,2-Dibromoethane (EDB)	9.66	0.50	µg/L	10.0		96.6	70-130			
Dibromomethane	10.1	1.0	µg/L	10.0		101	70-130			
1,2-Dichlorobenzene	8.99	1.0	µg/L	10.0		89.9	70-130			
1,3-Dichlorobenzene	8.96	1.0	µg/L	10.0		89.6	70-130			
1,4-Dichlorobenzene	9.17	1.0	µg/L	10.0		91.7	70-130			
trans-1,4-Dichloro-2-butene	9.79	2.0	µg/L	10.0		97.9	70-130			
Dichlorodifluoromethane (Freon 12)	7.18	2.0	µg/L	10.0		71.8	40-160			†
1,1-Dichloroethane	10.9	1.0	µg/L	10.0		109	70-130			
1,2-Dichloroethane	10.3	5.0	µg/L	10.0		103	70-130			
1,1-Dichloroethylene	8.75	1.0	µg/L	10.0		87.5	70-130			
cis-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130			
trans-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dichloropropane	10.2	1.0	µg/L	10.0		102	70-130			
1,3-Dichloropropane	10.3	0.50	µg/L	10.0		103	70-130			
2,2-Dichloropropane	8.89	1.0	µg/L	10.0		88.9	40-130			†
1,1-Dichloropropene	10.4	2.0	µg/L	10.0		104	70-130			
cis-1,3-Dichloropropene	9.34	0.50	µg/L	10.0		93.4	70-130			
trans-1,3-Dichloropropene	10.2	0.50	µg/L	10.0		102	70-130			
Diethyl Ether	9.25	2.0	µg/L	10.0		92.5	70-130			
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0		101	70-130			
1,4-Dioxane	137	50	µg/L	100		137	40-130	*		L-02, V-16, V-20 †
Ethylbenzene	9.48	1.0	µg/L	10.0		94.8	70-130			
Hexachlorobutadiene	9.88	0.50	µg/L	10.0		98.8	70-130			
2-Hexanone (MBK)	108	10	µg/L	100		108	70-160			V-20 †
Isopropylbenzene (Cumene)	8.82	1.0	µg/L	10.0		88.2	70-130			
p-Isopropyltoluene (p-Cymene)	9.76	1.0	µg/L	10.0		97.6	70-130			
Methyl tert-Butyl Ether (MTBE)	10.2	1.0	µg/L	10.0		102	70-130			
Methylene Chloride	7.81	5.0	µg/L	10.0		78.1	70-130			
4-Methyl-2-pentanone (MIBK)	103	10	µg/L	100		103	70-160			V-20 †
Naphthalene	10.1	2.0	µg/L	10.0		101	40-130			†
n-Propylbenzene	9.31	1.0	µg/L	10.0		93.1	70-130			
Styrene	9.23	1.0	µg/L	10.0		92.3	70-130			
1,1,1,2-Tetrachloroethane	8.99	1.0	µg/L	10.0		89.9	70-130			
1,1,2,2-Tetrachloroethane	9.37	0.50	µg/L	10.0		93.7	70-130			
Tetrachloroethylene	9.44	1.0	µg/L	10.0		94.4	70-130			
Tetrahydrofuran	12.0	10	µg/L	10.0		120	70-130			V-16, V-20
Toluene	9.62	1.0	µg/L	10.0		96.2	70-130			
1,2,3-Trichlorobenzene	9.64	5.0	µg/L	10.0		96.4	70-130			
1,2,4-Trichlorobenzene	9.56	1.0	µg/L	10.0		95.6	70-130			
1,3,5-Trichlorobenzene	9.14	1.0	µg/L	10.0		91.4	70-130			
1,1,1-Trichloroethane	10.1	1.0	µg/L	10.0		101	70-130			
1,1,2-Trichloroethane	9.64	1.0	µg/L	10.0		96.4	70-130			
Trichloroethylene	10.0	1.0	µg/L	10.0		100	70-130			
Trichlorofluoromethane (Freon 11)	8.16	2.0	µg/L	10.0		81.6	70-130			
1,2,3-Trichloropropane	9.94	2.0	µg/L	10.0		99.4	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.77	1.0	µg/L	10.0		97.7	70-130			
1,2,4-Trimethylbenzene	9.58	1.0	µg/L	10.0		95.8	70-130			
1,3,5-Trimethylbenzene	9.09	1.0	µg/L	10.0		90.9	70-130			
Vinyl Chloride	7.91	2.0	µg/L	10.0		79.1	40-160			†

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B092583 - SW-846 5030B

LCS (B092583-BS1)

Prepared: 03/26/14 Analyzed: 03/27/14

m+p Xylene	18.2	2.0	µg/L	20.0		91.2	70-130			
o-Xylene	9.00	1.0	µg/L	10.0		90.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	26.9		µg/L	25.0		107	70-130			
Surrogate: Toluene-d8	25.3		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	24.4		µg/L	25.0		97.6	70-130			

LCS Dup (B092583-BS1)

Prepared: 03/26/14 Analyzed: 03/27/14

Acetone	107	50	µg/L	100		107	70-160	19.0	25	†
Acrylonitrile	10.2	5.0	µg/L	10.0		102	70-130	13.9	25	
tert-Amyl Methyl Ether (TAME)	9.98	0.50	µg/L	10.0		99.8	70-130	9.01	25	
Benzene	11.2	1.0	µg/L	10.0		112	70-130	9.49	25	
Bromobenzene	10.5	1.0	µg/L	10.0		105	70-130	11.7	25	
Bromochloromethane	12.0	1.0	µg/L	10.0		120	70-130	7.25	25	
Bromodichloromethane	10.5	0.50	µg/L	10.0		105	70-130	10.2	25	
Bromoform	11.8	1.0	µg/L	10.0		118	70-130	10.0	25	
Bromomethane	6.09	2.0	µg/L	10.0		60.9	40-160	23.1	25	†
2-Butanone (MEK)	123	20	µg/L	100		123	40-160	19.3	25	†
tert-Butyl Alcohol (TBA)	110	20	µg/L	100		110	40-160	22.1	25	V-16 †
n-Butylbenzene	11.0	1.0	µg/L	10.0		110	70-130	13.7	25	
sec-Butylbenzene	10.3	1.0	µg/L	10.0		103	70-130	9.78	25	
tert-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	10.3	25	
tert-Butyl Ethyl Ether (TBEE)	11.2	0.50	µg/L	10.0		112	70-130	9.17	25	
Carbon Disulfide	10.5	4.0	µg/L	10.0		105	70-130	15.3	25	
Carbon Tetrachloride	10.9	5.0	µg/L	10.0		109	70-130	7.79	25	
Chlorobenzene	9.72	1.0	µg/L	10.0		97.2	70-130	9.37	25	
Chlorodibromomethane	10.0	0.50	µg/L	10.0		100	70-130	12.9	25	
Chloroethane	9.90	2.0	µg/L	10.0		99.0	70-130	6.90	25	
Chloroform	10.7	2.0	µg/L	10.0		107	70-130	9.08	25	
Chloromethane	7.32	2.0	µg/L	10.0		73.2	40-160	9.74	25	†
2-Chlorotoluene	9.49	1.0	µg/L	10.0		94.9	70-130	14.5	25	
4-Chlorotoluene	10.0	1.0	µg/L	10.0		100	70-130	10.7	25	
1,2-Dibromo-3-chloropropane (DBCP)	12.2	5.0	µg/L	10.0		122	70-130	20.1	25	
1,2-Dibromoethane (EDB)	11.2	0.50	µg/L	10.0		112	70-130	14.4	25	
Dibromomethane	10.9	1.0	µg/L	10.0		109	70-130	7.81	25	
1,2-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	12.4	25	
1,3-Dichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	11.6	25	
1,4-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	11.8	25	
trans-1,4-Dichloro-2-butene	11.1	2.0	µg/L	10.0		111	70-130	12.5	25	
Dichlorodifluoromethane (Freon 12)	8.03	2.0	µg/L	10.0		80.3	40-160	11.2	25	†
1,1-Dichloroethane	12.0	1.0	µg/L	10.0		120	70-130	10.2	25	
1,2-Dichloroethane	11.2	5.0	µg/L	10.0		112	70-130	8.48	25	
1,1-Dichloroethylene	9.38	1.0	µg/L	10.0		93.8	70-130	6.95	25	
cis-1,2-Dichloroethylene	11.1	1.0	µg/L	10.0		111	70-130	7.96	25	
trans-1,2-Dichloroethylene	11.2	1.0	µg/L	10.0		112	70-130	6.74	25	
1,2-Dichloropropane	11.2	1.0	µg/L	10.0		112	70-130	9.56	25	
1,3-Dichloropropane	11.5	0.50	µg/L	10.0		115	70-130	10.8	25	
2,2-Dichloropropane	9.63	1.0	µg/L	10.0		96.3	40-130	7.99	25	†
1,1-Dichloropropene	11.8	2.0	µg/L	10.0		118	70-130	12.5	25	
cis-1,3-Dichloropropene	10.3	0.50	µg/L	10.0		103	70-130	9.48	25	
trans-1,3-Dichloropropene	11.5	0.50	µg/L	10.0		115	70-130	12.2	25	
Diethyl Ether	10.4	2.0	µg/L	10.0		104	70-130	11.7	25	
Diisopropyl Ether (DIPE)	11.3	0.50	µg/L	10.0		113	70-130	11.3	25	

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B092583 - SW-846 5030B										
LCS Dup (B092583-BSD1)										
					Prepared: 03/26/14 Analyzed: 03/27/14					
1,4-Dioxane	155	50	µg/L	100		155 *	40-130	12.1	50	V-16, V-20, L-02 † ‡
Ethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	9.64	25	
Hexachlorobutadiene	10.9	0.50	µg/L	10.0		109	70-130	9.82	25	
2-Hexanone (MBK)	128	10	µg/L	100		128	70-160	16.8	25	V-20 †
Isopropylbenzene (Cumene)	9.88	1.0	µg/L	10.0		98.8	70-130	11.3	25	
p-Isopropyltoluene (p-Cymene)	10.8	1.0	µg/L	10.0		108	70-130	10.6	25	
Methyl tert-Butyl Ether (MTBE)	11.2	1.0	µg/L	10.0		112	70-130	9.61	25	
Methylene Chloride	8.79	5.0	µg/L	10.0		87.9	70-130	11.8	25	
4-Methyl-2-pentanone (MIBK)	121	10	µg/L	100		121	70-160	16.1	25	V-20 †
Naphthalene	12.0	2.0	µg/L	10.0		120	40-130	17.8	25	†
n-Propylbenzene	10.1	1.0	µg/L	10.0		101	70-130	8.53	25	
Styrene	10.2	1.0	µg/L	10.0		102	70-130	10.3	25	
1,1,1,2-Tetrachloroethane	10.0	1.0	µg/L	10.0		100	70-130	10.7	25	
1,1,2,2-Tetrachloroethane	11.0	0.50	µg/L	10.0		110	70-130	16.2	25	
Tetrachloroethylene	10.5	1.0	µg/L	10.0		105	70-130	10.8	25	
Tetrahydrofuran	12.9	10	µg/L	10.0		129	70-130	6.97	25	V-16, V-20
Toluene	10.7	1.0	µg/L	10.0		107	70-130	10.8	25	
1,2,3-Trichlorobenzene	11.3	5.0	µg/L	10.0		113	70-130	16.0	25	
1,2,4-Trichlorobenzene	11.0	1.0	µg/L	10.0		110	70-130	14.1	25	
1,3,5-Trichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130	14.0	25	
1,1,1-Trichloroethane	11.2	1.0	µg/L	10.0		112	70-130	10.0	25	
1,1,2-Trichloroethane	10.8	1.0	µg/L	10.0		108	70-130	11.0	25	
Trichloroethylene	11.2	1.0	µg/L	10.0		112	70-130	11.6	25	
Trichlorofluoromethane (Freon 11)	8.94	2.0	µg/L	10.0		89.4	70-130	9.12	25	
1,2,3-Trichloropropane	11.6	2.0	µg/L	10.0		116	70-130	15.8	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.4	1.0	µg/L	10.0		104	70-130	5.77	25	
1,2,4-Trimethylbenzene	10.7	1.0	µg/L	10.0		107	70-130	10.9	25	
1,3,5-Trimethylbenzene	10.1	1.0	µg/L	10.0		101	70-130	10.3	25	
Vinyl Chloride	8.23	2.0	µg/L	10.0		82.3	40-160	3.97	25	†
m+p Xylene	20.1	2.0	µg/L	20.0		100	70-130	9.60	25	
o-Xylene	10.0	1.0	µg/L	10.0		100	70-130	10.5	25	
Surrogate: 1,2-Dichloroethane-d4	26.9		µg/L	25.0		108	70-130			
Surrogate: Toluene-d8	25.0		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	24.6		µg/L	25.0		98.4	70-130			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- L-02 Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
 - V-16 Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
 - V-20 Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Acetone	CT,NY,ME,NH,VA,NJ
Acrylonitrile	CT,NY,ME,NH,VA,NJ
tert-Amyl Methyl Ether (TAME)	NY,ME,NH,VA,NJ
Benzene	CT,NY,ME,NH,VA,NJ
Bromochloromethane	NY,ME,NH,VA,NJ
Bromodichloromethane	CT,NY,ME,NH,VA,NJ
Bromoform	CT,NY,ME,NH,VA,NJ
Bromomethane	CT,NY,ME,NH,VA,NJ
2-Butanone (MEK)	CT,NY,ME,NH,VA,NJ
tert-Butyl Alcohol (TBA)	NY,ME,NH,VA,NJ
n-Butylbenzene	NY,ME,VA,NJ
sec-Butylbenzene	NY,ME,VA,NJ
tert-Butylbenzene	NY,ME,VA,NJ
tert-Butyl Ethyl Ether (TBEE)	NY,ME,NH,VA,NJ
Carbon Disulfide	CT,NY,ME,NH,VA,NJ
Carbon Tetrachloride	CT,NY,ME,NH,VA,NJ
Chlorobenzene	CT,NY,ME,NH,VA,NJ
Chlorodibromomethane	CT,NY,ME,NH,VA,NJ
Chloroethane	CT,NY,ME,NH,VA,NJ
Chloroform	CT,NY,ME,NH,VA,NJ
Chloromethane	CT,NY,ME,NH,VA,NJ
2-Chlorotoluene	NY,ME,NH,VA,NJ
4-Chlorotoluene	NY,ME,NH,VA,NJ
Dibromomethane	NY,ME,NH,VA,NJ
1,2-Dichlorobenzene	CT,NY,ME,NH,VA,NJ
1,3-Dichlorobenzene	CT,NY,ME,NH,VA,NJ
1,4-Dichlorobenzene	CT,NY,ME,NH,VA,NJ
trans-1,4-Dichloro-2-butene	NY,ME,NH,VA,NJ
Dichlorodifluoromethane (Freon 12)	NY,ME,NH,VA,NJ
1,1-Dichloroethane	CT,NY,ME,NH,VA,NJ
1,2-Dichloroethane	CT,NY,ME,NH,VA,NJ
1,1-Dichloroethylene	CT,NY,ME,NH,VA,NJ
cis-1,2-Dichloroethylene	NY,ME,NJ
trans-1,2-Dichloroethylene	CT,NY,ME,NH,VA,NJ
1,2-Dichloropropane	CT,NY,ME,NH,VA,NJ
1,3-Dichloropropane	NY,ME,VA,NJ
2,2-Dichloropropane	NY,ME,NH,VA,NJ
1,1-Dichloropropene	NY,ME,NH,VA,NJ
cis-1,3-Dichloropropene	CT,NY,ME,NH,VA,NJ
trans-1,3-Dichloropropene	CT,NY,ME,NH,VA,NJ
Diisopropyl Ether (DIPE)	NY,ME,NH,VA,NJ
Ethylbenzene	CT,NY,ME,NH,VA,NJ
Hexachlorobutadiene	CT,NY,ME,NH,VA,NJ
2-Hexanone (MBK)	CT,NY,ME,NH,VA,NJ
Isopropylbenzene (Cumene)	NY,ME,VA,NJ
p-Isopropyltoluene (p-Cymene)	CT,NY,ME,NH,VA,NJ
Methyl tert-Butyl Ether (MTBE)	CT,NY,ME,NH,VA,NJ

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Methylene Chloride	CT,NY,ME,NH,VA,NJ
4-Methyl-2-pentanone (MIBK)	CT,NY,ME,NH,VA,NJ
Naphthalene	NY,ME,NH,VA,NJ
n-Propylbenzene	CT,NY,ME,NH,VA,NJ
Styrene	CT,NY,ME,NH,VA,NJ
1,1,1,2-Tetrachloroethane	CT,NY,ME,NH,VA,NJ
1,1,2,2-Tetrachloroethane	CT,NY,ME,NH,VA,NJ
Tetrachloroethylene	CT,NY,ME,NH,VA,NJ
Toluene	CT,NY,ME,NH,VA,NJ
1,2,3-Trichlorobenzene	NY,ME,NH,VA,NJ
1,2,4-Trichlorobenzene	CT,NY,ME,NH,VA,NJ
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NY,ME,NH,VA,NJ
1,1,2-Trichloroethane	CT,NY,ME,NH,VA,NJ
Trichloroethylene	CT,NY,ME,NH,VA,NJ
Trichlorofluoromethane (Freon 11)	CT,NY,ME,NH,VA,NJ
1,2,3-Trichloropropane	NY,ME,NH,VA,NJ
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY,VA,NJ
1,2,4-Trimethylbenzene	NY,ME,VA,NJ
1,3,5-Trimethylbenzene	NY,ME,VA,NJ
Vinyl Chloride	CT,NY,ME,NH,VA,NJ
m+p Xylene	CT,NY,ME,NH,VA
o-Xylene	CT,NY,ME,NH,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



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 Email: info@contestlabs.com
 www.contestlabs.com

CHAIN OF CUSTODY RECORD

14C0746

39 SPRUCE ST, 2ND FLOOR
 EAST LONGMEADOW, MA 01028

Company Name: ARCAO15
 Address: 300 Metro Center Blvd.
Warwick RI 02886
 Attention: Donna Ballister
 Project Location: Springfield St, Providence
 Sampled By: A. DeSilva

Telephone: 401 738-3887
 Project # WK012152.0007
 Client PO # _____
 DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT
 Fax #: _____
 Email: donna.ballister@arcadist.com
 Format: EXCEL PDF GIS KEY

Proposal Provided? (For Billing purposes)
 yes no
 State Form Required?
 yes no

Field ID	Sample Description	Lab #	Date Sampled	Start Date/Time	Stop Date/Time	Comp-site	Grab	*Matrix Conc. Code												
	MW-7	01	3/24/14	0900	0935	X		GW			X									
	MW-6	03			1030	X		GW			X									
	ATC-4	03			1130	X		GW			X									
	MW-8	04			1315	X		GW			X									
	ATC-1	05																		
	Trip Blank	06																		

Laboratory Comments: _____
 Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
 H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by (signature) Cto Ret Date/Time: 3.24.14 1600

Received by (signature) [Signature] Date/Time: 3.24.14 13:10

Relinquished by (signature) [Signature] Date/Time: 3.25.14 17:55

Received by (signature) [Signature] Date/Time: 3.25.14 17:55

Turnaround **
 7-Day
 10-Day
 Other 5FP
RUSH *

Detection Limit Requirements
 Regulations? _____
 Data Enhancement Project/RCP? Y N
 Special Requirements or DLS: _____

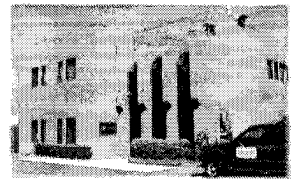
*Matrix Code:
 GW = groundwater
 WW = wastewater
 DW = drinking water
 A = air
 S = soil/solid
 SL = sludge
 O = other

**Preservation Codes:
 I = Iced X = Na hydroxide
 H = HCL T = Na thiosulfate
 M = Methanol
 N = Nitric Acid
 S = Sulfuric Acid
 B = Sodium bisulfate
 O = Other

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAP & WBE/DBE Certified

39 Spruce St.
 East Longmeadow, MA. 01028
 P: 413-525-2332
 F: 413-525-6405
 www.contestlabs.com



Sample Receipt Checklist

CLIENT NAME: ARCADIS RECEIVED BY: MJS DATE: 3/25/14

- 1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included
- 2) Does the chain agree with the samples? Yes No
If not, explain:
- 3) Are all the samples in good condition? Yes No
If not, explain:

4) How were the samples received:
 On Ice Direct from Sampling Ambient In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A
 Temperature °C by Temp blank _____ Temperature °C by Temp gun 3.3°C

5) Are there Dissolved samples for the lab to filter? Yes No
 Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No
 Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19
 Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

8) Do all samples have the proper Acid pH: Yes No N/A _____

9) Do all samples have the proper Base pH: Yes No N/A _____

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A

Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber			8 oz amber/clear jar	
500 mL Amber			4 oz amber/clear jar	
250 mL Amber (8oz amber)			2 oz amber/clear jar	
1 Liter Plastic			Plastic Bag / Ziploc	
500 mL Plastic			SOC Kit	
250 mL plastic			Non-ConTest Container	
40 mL Vial - type listed below	17		Perchlorate Kit	
Colisure / bacteria bottle			Flashpoint bottle	
Dissolved Oxygen bottle			Other glass jar	
Encore			Other	

Laboratory Comments:

40 mL vials: # HCl 17 # Methanol _____
 # Bisulfate _____ # DI Water _____
 # Thiosulfate _____ Unpreserved _____

Time and Date Frozen: _____

Page 2 of 2
Login Sample Receipt Checklist
 (Rejection Criteria Listing - Using Sample Acceptance Policy)
 Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	T	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	T	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?
 Log-In Technician Initials:

Date/Time:
 Date/Time:

MJ 3/25/14 17:55

April 1, 2014

Donna Pallister
Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886

Project Location: Springfield St., Providence
Client Job Number:
Project Number: WK012152.0009
Laboratory Work Order Number: 14C0764

Enclosed are results of analyses for samples received by the laboratory on March 25, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa A. Worthington
Project Manager

Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886
ATTN: Donna Pallister

REPORT DATE: 4/1/2014

PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER: WK012152.0009

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14C0764

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Springfield St., Providence

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MS Front	14C0764-01	Sub Slab		EPA TO-14A	
MS Back	14C0764-02	Sub Slab		EPA TO-14A	
ES #1	14C0764-03	Sub Slab		EPA TO-14A	
ES #2	14C0764-04	Sub Slab		EPA TO-14A	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-14A

Qualifications:

Holding times and stability of samples taken in tedlar bags have not been determined

Analyte & Samples(s) Qualified:

14C0764-01[MS Front], 14C0764-02[MS Back], 14C0764-03[ES #1], 14C0764-04[ES #2]

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene, Hexachlorobutadiene

14C0764-01[MS Front], 14C0764-02[MS Back], 14C0764-03[ES #1], 14C0764-04[ES #2], B092837-BLK1, B092837-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson
Laboratory Director

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: MS Front
Sample ID: 14C0764-01
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 13:50

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analized		
Benzene	0.20	0.10		0.63	0.32	2	3/28/14	0:40	TPH
Bromomethane	ND	0.10		ND	0.39	2	3/28/14	0:40	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	3/28/14	0:40	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	3/28/14	0:40	TPH
Chloroethane	ND	0.10		ND	0.26	2	3/28/14	0:40	TPH
Chloroform	ND	0.10		ND	0.49	2	3/28/14	0:40	TPH
Chloromethane	0.21	0.20		0.44	0.41	2	3/28/14	0:40	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	3/28/14	0:40	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	0:40	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	0:40	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	0:40	TPH
Dichlorodifluoromethane (Freon 12)	0.52	0.10		2.6	0.49	2	3/28/14	0:40	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	0:40	TPH
1,2-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	0:40	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	0:40	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	0:40	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	3/28/14	0:40	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	0:40	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	0:40	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.16	0.10		1.1	0.70	2	3/28/14	0:40	TPH
Ethylbenzene	0.16	0.10		0.70	0.43	2	3/28/14	0:40	TPH
Hexachlorobutadiene	ND	0.10	V-05	ND	1.1	2	3/28/14	0:40	TPH
Methylene Chloride	1.6	1.0		5.5	3.5	2	3/28/14	0:40	TPH
Styrene	0.12	0.10		0.49	0.43	2	3/28/14	0:40	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	3/28/14	0:40	TPH
Tetrachloroethylene	0.34	0.10		2.3	0.68	2	3/28/14	0:40	TPH
Toluene	1.3	0.10		4.7	0.38	2	3/28/14	0:40	TPH
1,2,4-Trichlorobenzene	ND	0.10	V-05	ND	0.74	2	3/28/14	0:40	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	0:40	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	0:40	TPH
Trichloroethylene	ND	0.10		ND	0.54	2	3/28/14	0:40	TPH
Trichlorofluoromethane (Freon 11)	0.44	0.10		2.4	0.56	2	3/28/14	0:40	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	3/28/14	0:40	TPH
1,2,4-Trimethylbenzene	0.11	0.10		0.56	0.49	2	3/28/14	0:40	TPH
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	0:40	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	3/28/14	0:40	TPH
m&p-Xylene	0.74	0.20		3.2	0.87	2	3/28/14	0:40	TPH

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: MS Front
Sample ID: 14C0764-01
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 13:50

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	0.32	0.10		1.4	0.43	2	3/28/14	0:40	TPH

Surrogates	% Recovery		% REC Limits		Date/Time	
4-Bromofluorobenzene (1)	105		70-130		3/28/14 0:40	

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: MS Back
Sample ID: 14C0764-02
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 14:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.18	0.10		0.57	0.32	2	3/28/14	1:19	TPH
Bromomethane	ND	0.10		ND	0.39	2	3/28/14	1:19	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	3/28/14	1:19	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	3/28/14	1:19	TPH
Chloroethane	ND	0.10		ND	0.26	2	3/28/14	1:19	TPH
Chloroform	ND	0.10		ND	0.49	2	3/28/14	1:19	TPH
Chloromethane	ND	0.20		ND	0.41	2	3/28/14	1:19	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	3/28/14	1:19	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	1:19	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	1:19	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	1:19	TPH
Dichlorodifluoromethane (Freon 12)	0.89	0.10		4.4	0.49	2	3/28/14	1:19	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	1:19	TPH
1,2-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	1:19	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	1:19	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	1:19	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	3/28/14	1:19	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	1:19	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	1:19	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.60	0.10		4.2	0.70	2	3/28/14	1:19	TPH
Ethylbenzene	0.16	0.10		0.70	0.43	2	3/28/14	1:19	TPH
Hexachlorobutadiene	ND	0.10	V-05	ND	1.1	2	3/28/14	1:19	TPH
Methylene Chloride	1.9	1.0		6.6	3.5	2	3/28/14	1:19	TPH
Styrene	0.11	0.10		0.49	0.43	2	3/28/14	1:19	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	3/28/14	1:19	TPH
Tetrachloroethylene	0.53	0.10		3.6	0.68	2	3/28/14	1:19	TPH
Toluene	1.2	0.10		4.5	0.38	2	3/28/14	1:19	TPH
1,2,4-Trichlorobenzene	ND	0.10	V-05	ND	0.74	2	3/28/14	1:19	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	1:19	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	1:19	TPH
Trichloroethylene	ND	0.10		ND	0.54	2	3/28/14	1:19	TPH
Trichlorofluoromethane (Freon 11)	0.57	0.10		3.2	0.56	2	3/28/14	1:19	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	3/28/14	1:19	TPH
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	1:19	TPH
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	1:19	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	3/28/14	1:19	TPH
m&p-Xylene	0.68	0.20		2.9	0.87	2	3/28/14	1:19	TPH

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: MS Back
Sample ID: 14C0764-02
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 14:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	0.31	0.10		1.4	0.43	2	3/28/14	1:19	TPH

Surrogates	% Recovery		% REC Limits		Date/Time	
4-Bromofluorobenzene (1)	104		70-130		3/28/14 1:19	

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: ES #1
Sample ID: 14C0764-03
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 14:24

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.22	0.10		0.72	0.32	2	3/28/14	1:58	TPH
Bromomethane	ND	0.10		ND	0.39	2	3/28/14	1:58	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	3/28/14	1:58	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	3/28/14	1:58	TPH
Chloroethane	ND	0.10		ND	0.26	2	3/28/14	1:58	TPH
Chloroform	0.16	0.10		0.76	0.49	2	3/28/14	1:58	TPH
Chloromethane	ND	0.20		ND	0.41	2	3/28/14	1:58	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	3/28/14	1:58	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	1:58	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	1:58	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	1:58	TPH
Dichlorodifluoromethane (Freon 12)	0.62	0.10		3.1	0.49	2	3/28/14	1:58	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	1:58	TPH
1,2-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	1:58	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	1:58	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	1:58	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	3/28/14	1:58	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	1:58	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	1:58	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.11	0.10		0.75	0.70	2	3/28/14	1:58	TPH
Ethylbenzene	0.18	0.10		0.77	0.43	2	3/28/14	1:58	TPH
Hexachlorobutadiene	ND	0.10	V-05	ND	1.1	2	3/28/14	1:58	TPH
Methylene Chloride	1.9	1.0		6.6	3.5	2	3/28/14	1:58	TPH
Styrene	ND	0.10		ND	0.43	2	3/28/14	1:58	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	3/28/14	1:58	TPH
Tetrachloroethylene	0.49	0.10		3.3	0.68	2	3/28/14	1:58	TPH
Toluene	1.2	0.10		4.7	0.38	2	3/28/14	1:58	TPH
1,2,4-Trichlorobenzene	ND	0.10	V-05	ND	0.74	2	3/28/14	1:58	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	1:58	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	1:58	TPH
Trichloroethylene	0.12	0.10		0.62	0.54	2	3/28/14	1:58	TPH
Trichlorofluoromethane (Freon 11)	0.49	0.10		2.8	0.56	2	3/28/14	1:58	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	3/28/14	1:58	TPH
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	1:58	TPH
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	1:58	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	3/28/14	1:58	TPH
m&p-Xylene	0.77	0.20		3.3	0.87	2	3/28/14	1:58	TPH

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: ES #1
Sample ID: 14C0764-03
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 14:24

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	0.31	0.10		1.4	0.43	2	3/28/14	1:58	TPH

Surrogates	% Recovery		% REC Limits		Date/Time	
4-Bromofluorobenzene (1)	97.0		70-130		3/28/14 1:58	

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: ES #2
Sample ID: 14C0764-04
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 14:20

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.21	0.10		0.68	0.32	2	3/28/14	2:37	TPH
Bromomethane	ND	0.10		ND	0.39	2	3/28/14	2:37	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	3/28/14	2:37	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	3/28/14	2:37	TPH
Chloroethane	ND	0.10		ND	0.26	2	3/28/14	2:37	TPH
Chloroform	0.15	0.10		0.75	0.49	2	3/28/14	2:37	TPH
Chloromethane	ND	0.20		ND	0.41	2	3/28/14	2:37	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	3/28/14	2:37	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	2:37	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	2:37	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	3/28/14	2:37	TPH
Dichlorodifluoromethane (Freon 12)	0.63	0.10		3.1	0.49	2	3/28/14	2:37	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	2:37	TPH
1,2-Dichloroethane	ND	0.10		ND	0.40	2	3/28/14	2:37	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	2:37	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	3/28/14	2:37	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	3/28/14	2:37	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	2:37	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	3/28/14	2:37	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.11	0.10		0.75	0.70	2	3/28/14	2:37	TPH
Ethylbenzene	0.15	0.10		0.66	0.43	2	3/28/14	2:37	TPH
Hexachlorobutadiene	ND	0.10	V-05	ND	1.1	2	3/28/14	2:37	TPH
Methylene Chloride	1.8	1.0		6.2	3.5	2	3/28/14	2:37	TPH
Styrene	0.11	0.10		0.48	0.43	2	3/28/14	2:37	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	3/28/14	2:37	TPH
Tetrachloroethylene	0.42	0.10		2.9	0.68	2	3/28/14	2:37	TPH
Toluene	1.4	0.10		5.3	0.38	2	3/28/14	2:37	TPH
1,2,4-Trichlorobenzene	ND	0.10	V-05	ND	0.74	2	3/28/14	2:37	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	2:37	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	3/28/14	2:37	TPH
Trichloroethylene	0.10	0.10		0.56	0.54	2	3/28/14	2:37	TPH
Trichlorofluoromethane (Freon 11)	0.50	0.10		2.8	0.56	2	3/28/14	2:37	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	3/28/14	2:37	TPH
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	2:37	TPH
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	3/28/14	2:37	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	3/28/14	2:37	TPH
m&p-Xylene	0.67	0.20		2.9	0.87	2	3/28/14	2:37	TPH

ANALYTICAL RESULTS

Project Location: Springfield St., Providence
 Date Received: 3/25/2014
Field Sample #: ES #2
Sample ID: 14C0764-04
 Sample Matrix: Sub Slab
 Sampled: 3/24/2014 14:20

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 14C0764
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	0.28	0.10		1.2	0.43	2	3/28/14	2:37	TPH

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	102	70-130	3/28/14 2:37

Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-14A

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
14C0764-01 [MS Front]	B092837	1	1	N/A	1000	400	200	03/27/14
14C0764-02 [MS Back]	B092837	1	1	N/A	1000	400	200	03/27/14
14C0764-03 [ES #1]	B092837	1	1	N/A	1000	400	200	03/27/14
14C0764-04 [ES #2]	B092837	1	1	N/A	1000	400	200	03/27/14

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	%REC	Limits	RPD	Limit	
Batch B092837 - TO-15 Prep											
Blank (B092837-BLK1)											
						Prepared & Analyzed: 03/27/14					
Benzene	ND	0.025									
Bromomethane	ND	0.025									
Carbon Tetrachloride	ND	0.025									
Chlorobenzene	ND	0.025									
Chloroethane	ND	0.025									
Chloroform	ND	0.025									
Chloromethane	ND	0.050									
1,2-Dibromoethane (EDB)	ND	0.025									
1,2-Dichlorobenzene	ND	0.025									
1,3-Dichlorobenzene	ND	0.025									
1,4-Dichlorobenzene	ND	0.025									
Dichlorodifluoromethane (Freon 12)	ND	0.025									
1,1-Dichloroethane	ND	0.025									
1,2-Dichloroethane	ND	0.025									
1,1-Dichloroethylene	ND	0.025									
cis-1,2-Dichloroethylene	ND	0.025									
1,2-Dichloropropane	ND	0.025									
cis-1,3-Dichloropropene	ND	0.025									
trans-1,3-Dichloropropene	ND	0.025									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.025									
Ethylbenzene	ND	0.025									
Hexachlorobutadiene	ND	0.025									V-05
Methylene Chloride	ND	0.25									
Styrene	ND	0.025									
1,1,1,2-Tetrachloroethane	ND	0.025									
Tetrachloroethylene	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	ND	0.025									V-05
1,1,1-Trichloroethane	ND	0.025									
1,1,2-Trichloroethane	ND	0.025									
Trichloroethylene	ND	0.025									
Trichlorofluoromethane (Freon 11)	ND	0.025									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.025									
1,2,4-Trimethylbenzene	ND	0.025									
1,3,5-Trimethylbenzene	ND	0.025									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
Surrogate: 4-Bromofluorobenzene (1)	7.30				8.00		91.3	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B092837 - TO-15 Prep											
LCS (B092837-BS1)											
						Prepared & Analyzed: 03/27/14					
Benzene	4.36				5.00		87.2	70-130			
Bromomethane	4.58				5.00		91.6	70-130			
Carbon Tetrachloride	4.85				5.00		97.0	70-130			
Chlorobenzene	4.42				5.00		88.5	70-130			
Chloroethane	5.58				5.00		112	70-130			
Chloroform	3.96				5.00		79.2	70-130			
Chloromethane	4.91				5.00		98.1	70-130			
1,2-Dibromoethane (EDB)	4.44				5.00		88.9	70-130			
1,2-Dichlorobenzene	4.69				5.00		93.8	70-130			
1,3-Dichlorobenzene	4.71				5.00		94.2	70-130			
1,4-Dichlorobenzene	4.63				5.00		92.6	70-130			
Dichlorodifluoromethane (Freon 12)	4.07				5.00		81.3	70-130			
1,1-Dichloroethane	4.13				5.00		82.6	70-130			
1,2-Dichloroethane	4.28				5.00		85.5	70-130			
1,1-Dichloroethylene	4.46				5.00		89.1	70-130			
cis-1,2-Dichloroethylene	4.12				5.00		82.5	70-130			
1,2-Dichloropropane	4.28				5.00		85.5	70-130			
cis-1,3-Dichloropropene	5.03				5.00		101	70-130			
trans-1,3-Dichloropropene	5.22				5.00		104	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.06				5.00		81.2	70-130			
Ethylbenzene	4.82				5.00		96.4	70-130			
Hexachlorobutadiene	4.41				5.00		88.3	70-130			V-05
Methylene Chloride	4.32				5.00		86.5	70-130			
Styrene	5.17				5.00		103	70-130			
1,1,2,2-Tetrachloroethane	4.29				5.00		85.8	70-130			
Tetrachloroethylene	4.12				5.00		82.5	70-130			
Toluene	4.84				5.00		96.7	70-130			
1,2,4-Trichlorobenzene	4.62				5.00		92.4	70-130			V-05
1,1,1-Trichloroethane	4.86				5.00		97.2	70-130			
1,1,2-Trichloroethane	4.23				5.00		84.6	70-130			
Trichloroethylene	4.13				5.00		82.6	70-130			
Trichlorofluoromethane (Freon 11)	5.12				5.00		102	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.13				5.00		82.7	70-130			
1,2,4-Trimethylbenzene	5.00				5.00		99.9	70-130			
1,3,5-Trimethylbenzene	5.09				5.00		102	70-130			
Vinyl Chloride	5.36				5.00		107	70-130			
m&p-Xylene	10.5				10.0		105	70-130			
o-Xylene	4.95				5.00		99.1	70-130			
Surrogate: 4-Bromofluorobenzene (1)	8.46				8.00		106	70-130			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- A-09 Holding times and stability of samples taken in tedlar bags have not been determined
 - V-05 Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-14A in Air</i>	
Benzene	AIHA,FL,NY
Bromomethane	AIHA,FL,NY
Carbon Tetrachloride	AIHA,FL,NY
Chlorobenzene	AIHA,FL,NY
Chloroethane	AIHA,FL,NY
Chloroform	AIHA,FL,NY
Chloromethane	AIHA,FL,NY
1,2-Dibromoethane (EDB)	NY
1,2-Dichlorobenzene	AIHA,FL,NY
1,3-Dichlorobenzene	AIHA,FL,NY
1,4-Dichlorobenzene	AIHA,FL,NY
Dichlorodifluoromethane (Freon 12)	AIHA,FL,NY
1,1-Dichloroethane	AIHA,FL,NY
1,2-Dichloroethane	AIHA,FL,NY
1,1-Dichloroethylene	AIHA,FL,NY
cis-1,2-Dichloroethylene	AIHA,FL,NY
1,2-Dichloropropane	AIHA,FL,NY
cis-1,3-Dichloropropene	AIHA,FL,NY
trans-1,3-Dichloropropene	NY
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,FL,NY
Ethylbenzene	AIHA,FL,NY
Hexachlorobutadiene	AIHA,FL,NY
Methylene Chloride	AIHA,FL,NY
Styrene	AIHA,FL,NY
1,1,2,2-Tetrachloroethane	AIHA,FL,NY
Tetrachloroethylene	AIHA,FL,NY
Toluene	AIHA,FL,NY
1,2,4-Trichlorobenzene	AIHA,FL,NY
1,1,1-Trichloroethane	AIHA,FL,NY
1,1,2-Trichloroethane	AIHA,FL,NY
Trichloroethylene	AIHA,FL,NY
Trichlorofluoromethane (Freon 11)	AIHA,FL,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY
1,2,4-Trimethylbenzene	AIHA,FL,NY
1,3,5-Trimethylbenzene	AIHA,FL,NY
Vinyl Chloride	AIHA,FL,NY
m&p-Xylene	AIHA,FL,NY
o-Xylene	AIHA,FL,NY

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



www.contestlabs.com

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 Email: info@contestlabs.com

RECORD
 14C057024

AIR SAMPLE CHAIN OF CUSTODY

39 SPRUCE ST
 EAST LONGMEADOW, MA 01028

Page 1 of 1
 D00#284
 Rev. Feb 2014

Company Name: ALCADIS

Address: 300 Methu Center Blvd

Worwick RI 02886

Attention: Dona Pallister

Project Location: Springfield St., Providence

Sampled By: A. D. Silva

Proposal Provided? (F or Billing purposes)

yes no proposal date

Telephone: 401-738-3887 x25
 Project # WK012152.0007
 Client PO # _____

DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT

Fax #: _____
 Email: adon.pallister@acadis-us.com
 Format: EXCEL PDF GIS KEY OTHER _____

Field ID	Sample Description	Media	Lab #
	MS Front	T	01
	MS Back	T	02
	ES # 1	T	03
	ES # 2	T	04

Laboratory Comments:

CLIENT COMMENTS:

Start Date	Stop Date	Total Minutes Sampled	Flow Rate		Volume	Matrix Code*
			M ³ /Min. or L/Min.	Liters or M ³		
3/24/14	1350	-	-	-	-	SS
	1400	-	-	-	-	SS
	1424	-	-	-	-	SS
	1420	-	-	-	-	SS

ANALYSIS REQUESTED	"Hg	Please fill out completely, sign, date and retain the yellow copy for your record.	
		Summa Canister ID	Flow Controller ID

Relinquished by (signature)	Date/Time:
<u>[Signature]</u>	3/24/14 1600
Received by (signature)	Date/Time:
<u>[Signature]</u>	3/25/14 13:10
Relinquished by (signature)	Date/Time:
<u>[Signature]</u>	3/25/14 17:55

Turnaround 7-Day 10-Day Other SRP
 RUSH *
 24-Hr 48-Hr 72-Hr 94-Day

Special Requirements
 Regulations: _____
 Data Enhancement/RCP? Y N
 Enhanced Data Package Y N
 Required Detection Limits: _____
 Other: _____

*Matrix Code
 SG = SOIL GAS
 IA = INDOOR AIR
 AMB = AMBIENT
 SS = SUB SLAB
 D = DUP
 BL = BLANK
 O = other

*Media Codes
 S = summa can
 T = Tedlar bag
 P = PUF
 T = tube
 F = filter
 C = cassette
 O = Other

TURNAROUND TIME STARTS AT 9:00 AM. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. NELAC & AIHA-LAP, LLC Accredited/WBE/DBE Certified



39 Spruce St.
 East Longmeadow, MA.
 01028
 P: 413-525-2332
 F: 413-525-6405

AIR Only Receipt Checklist

CLIENT NAME: Arcadis RECEIVED BY: CC DATE: 3-25-14

- 1) Was the chain(s) of custody relinquished and signed? Yes No
 - 2) Does the chain agree with the samples? Yes No
 If not, explain:
 - 3) Are all the samples in good condition? Yes No
 If not, explain:
 - 4) Are there any samples "On Hold"? Yes No Stored where:
 - 5) Are there any RUSH or SHORT HOLDING TIME samples? Yes No
- Who was notified _____ Date _____ Time _____

6) Location where samples are stored: Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

7) Number of cans Individually Certified or Batch Certified?

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)		
Tedlar Bags	4	
TO-17 Tubes		
Regulators		
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

Unused Regulators:

- 1) Was all media (used & unused) checked into the WASP?
- 2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments:

Login Sample Receipt Checklist

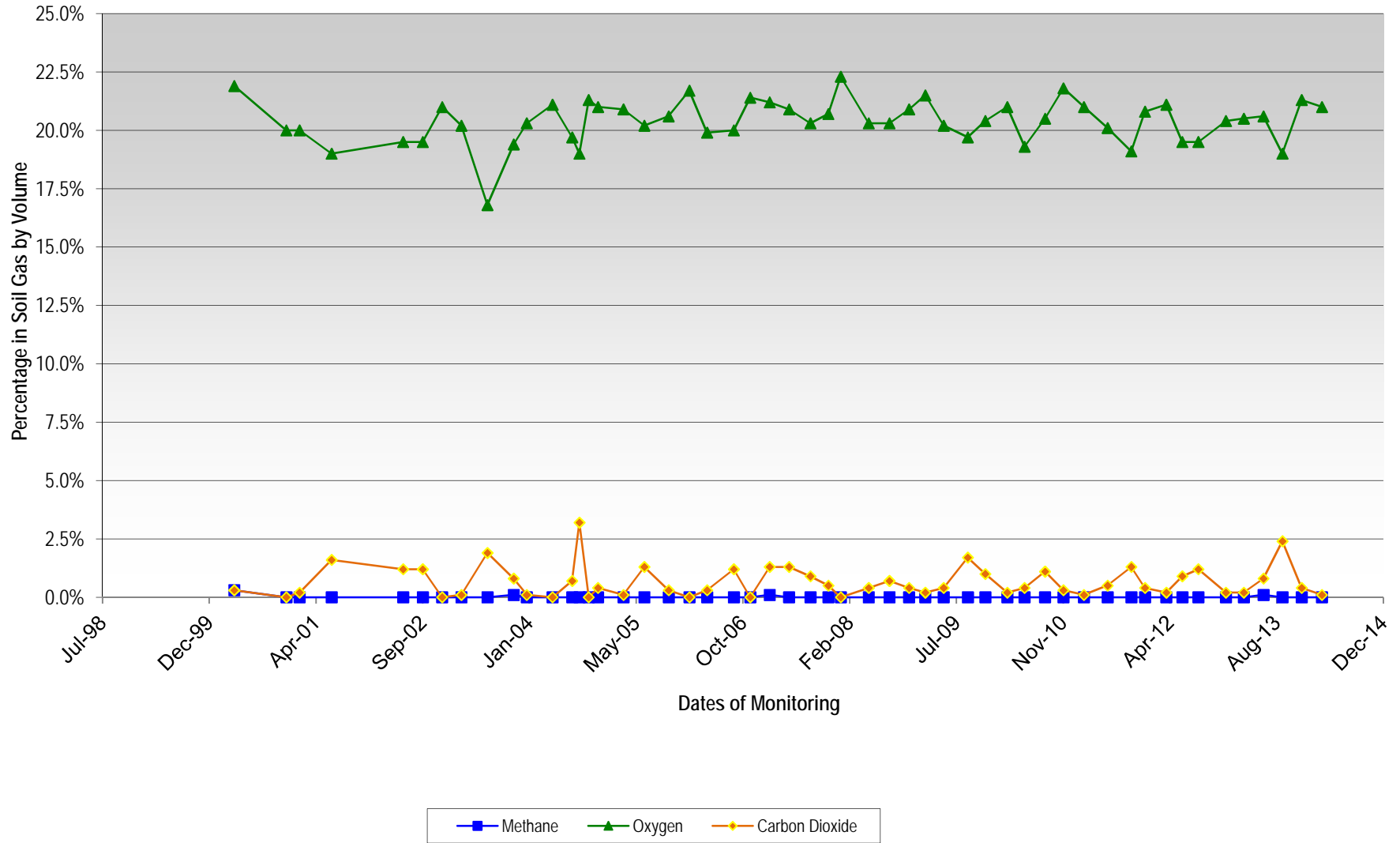
(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

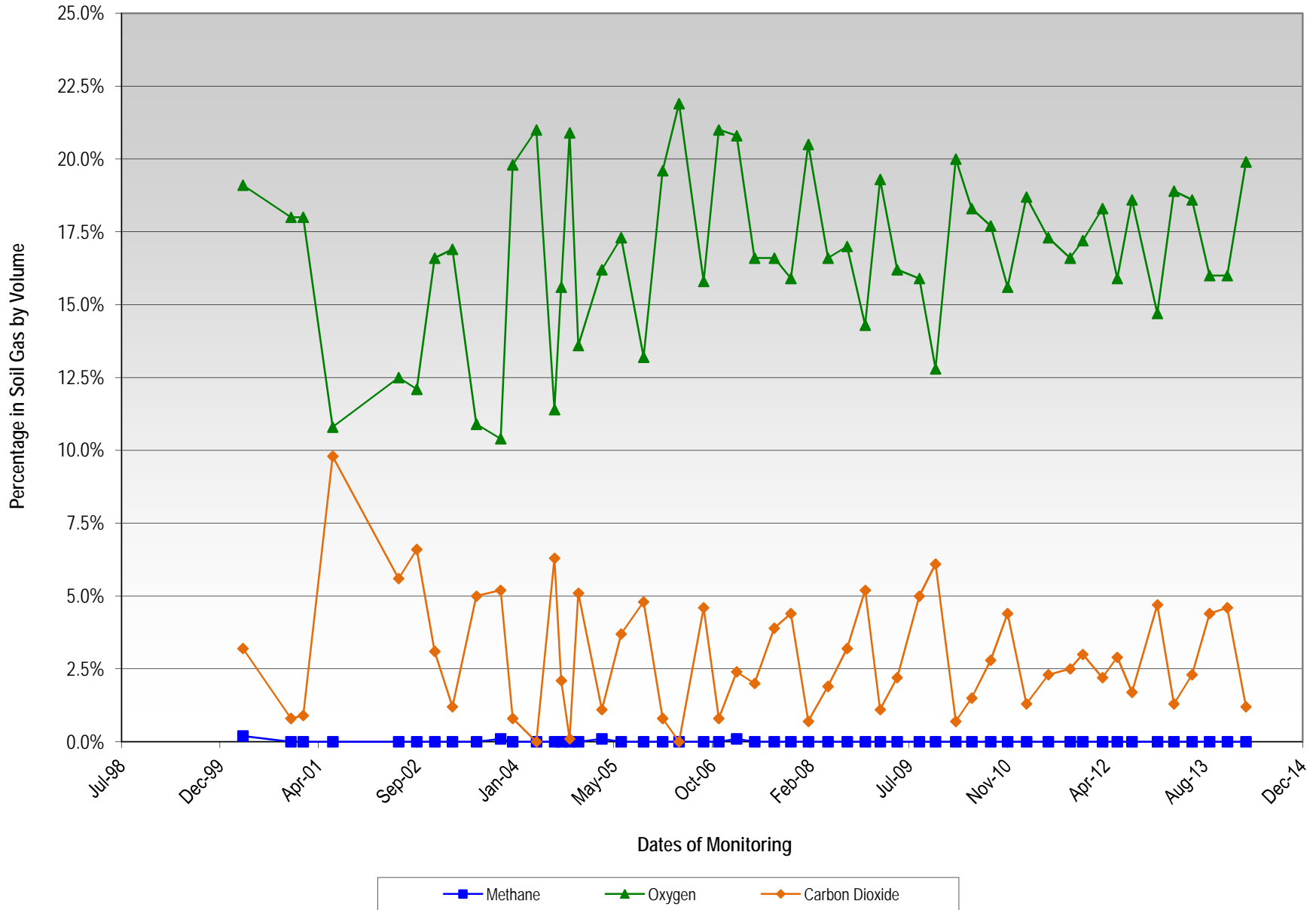
Question	Answer (True/False)		Comment
	T/F/NA		
1) The cooler's custody seal, if present, is intact.	NA		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	NA		
17) No headspace sample bottles are completely filled.	NA		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		

Appendix C
Soil Gas Parameter Graphs

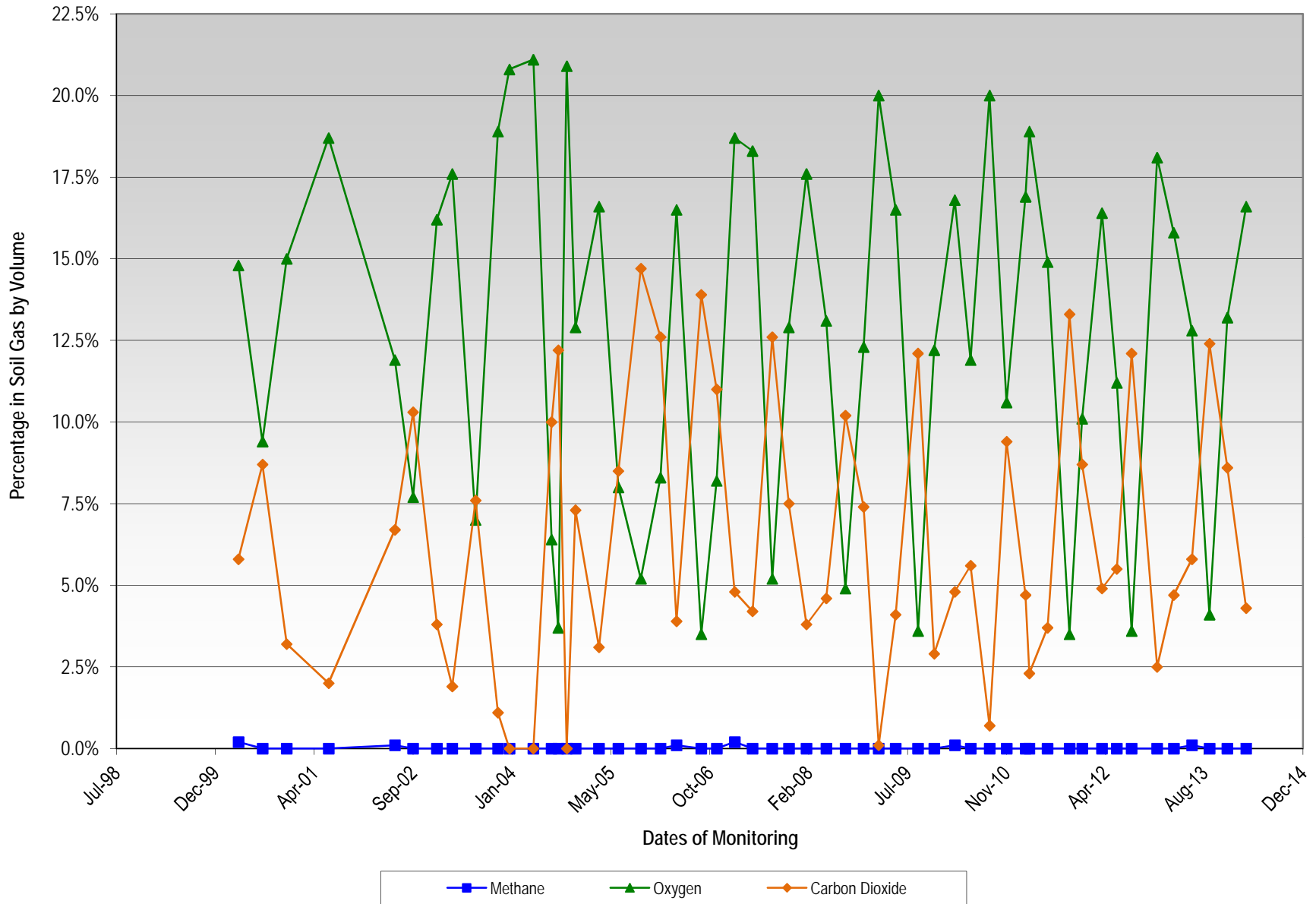
Soil Gas Well EPL1
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



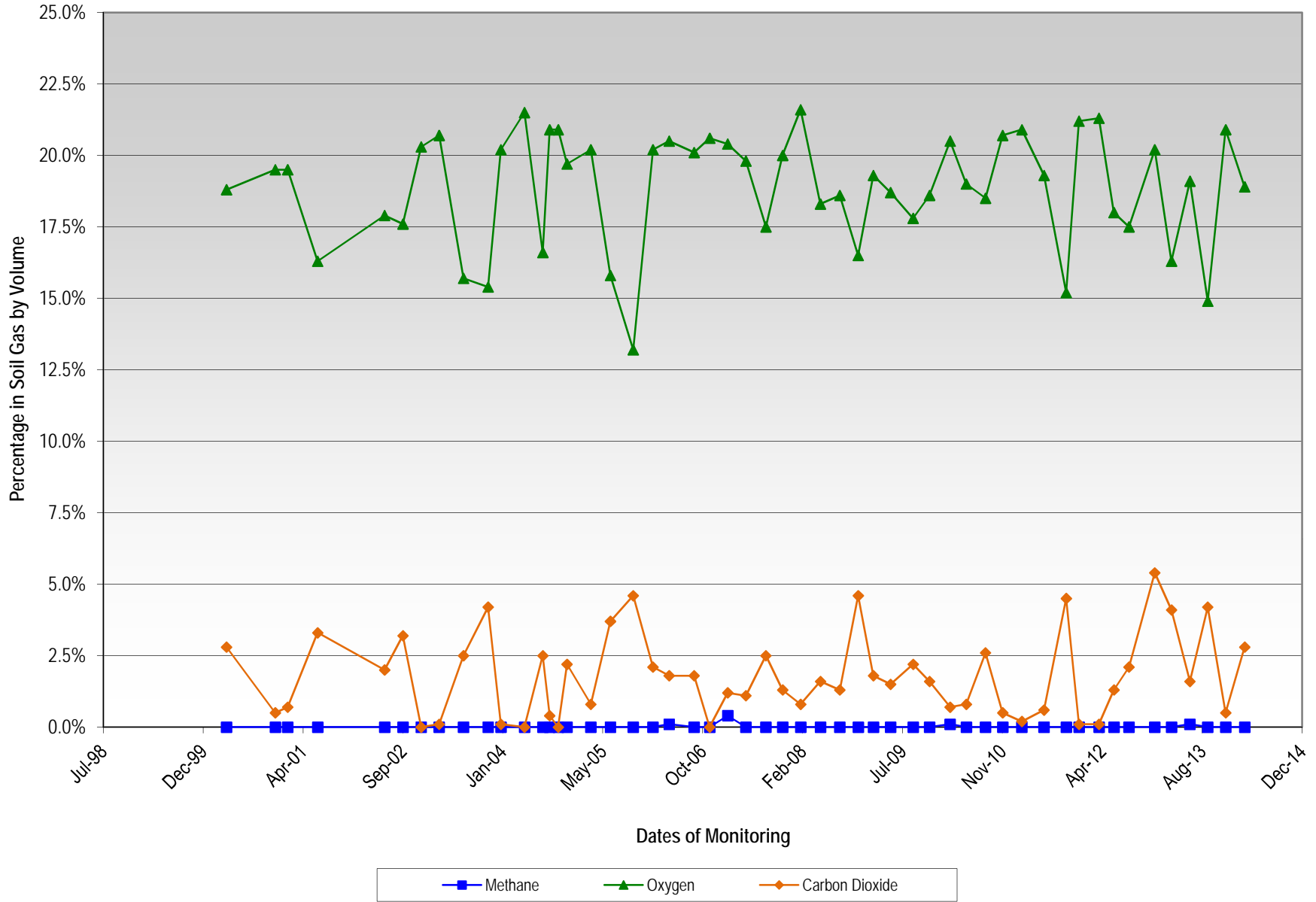
Soil Gas Well EPL4
 Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island



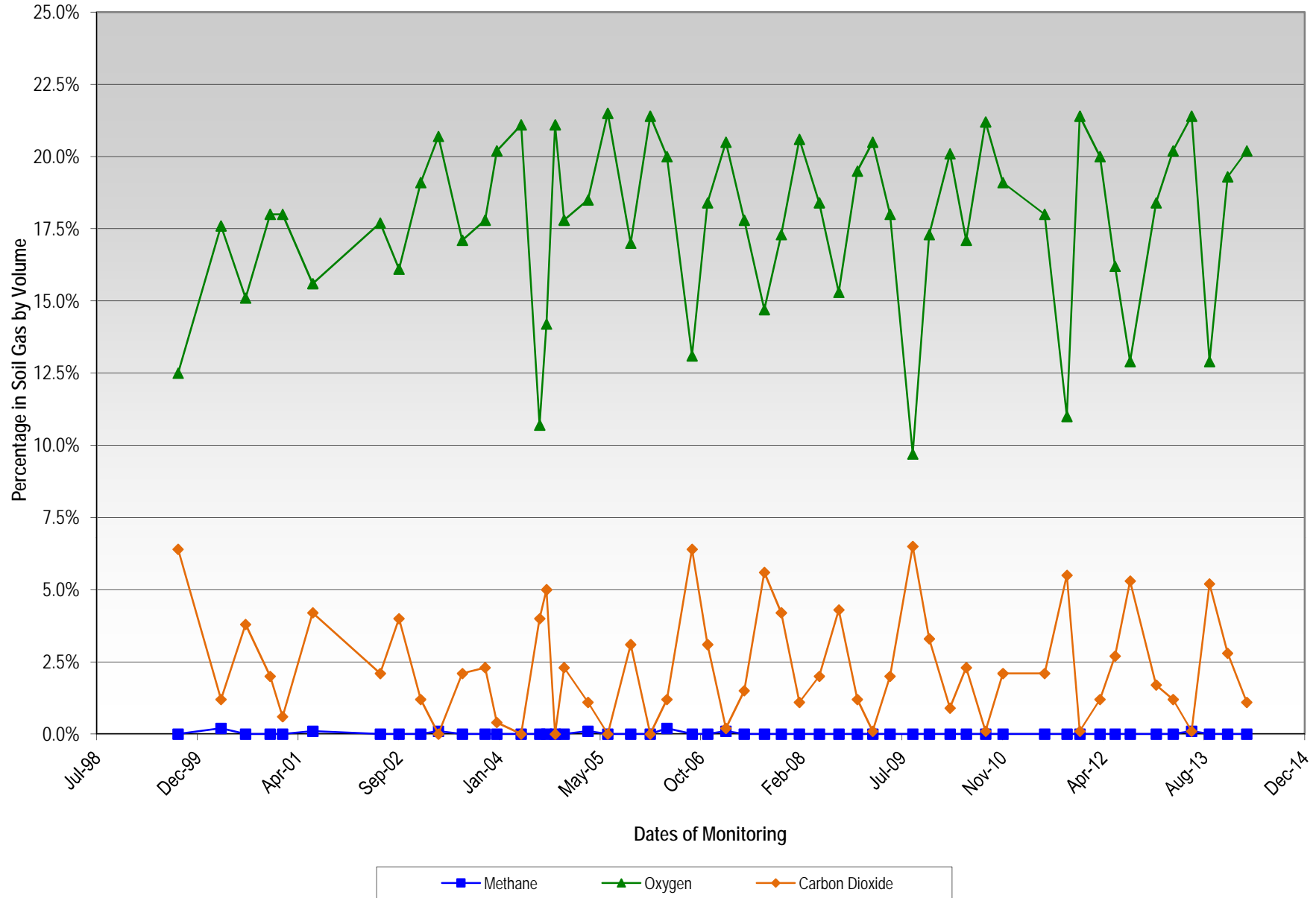
Soil Gas Well MPL5
 Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island



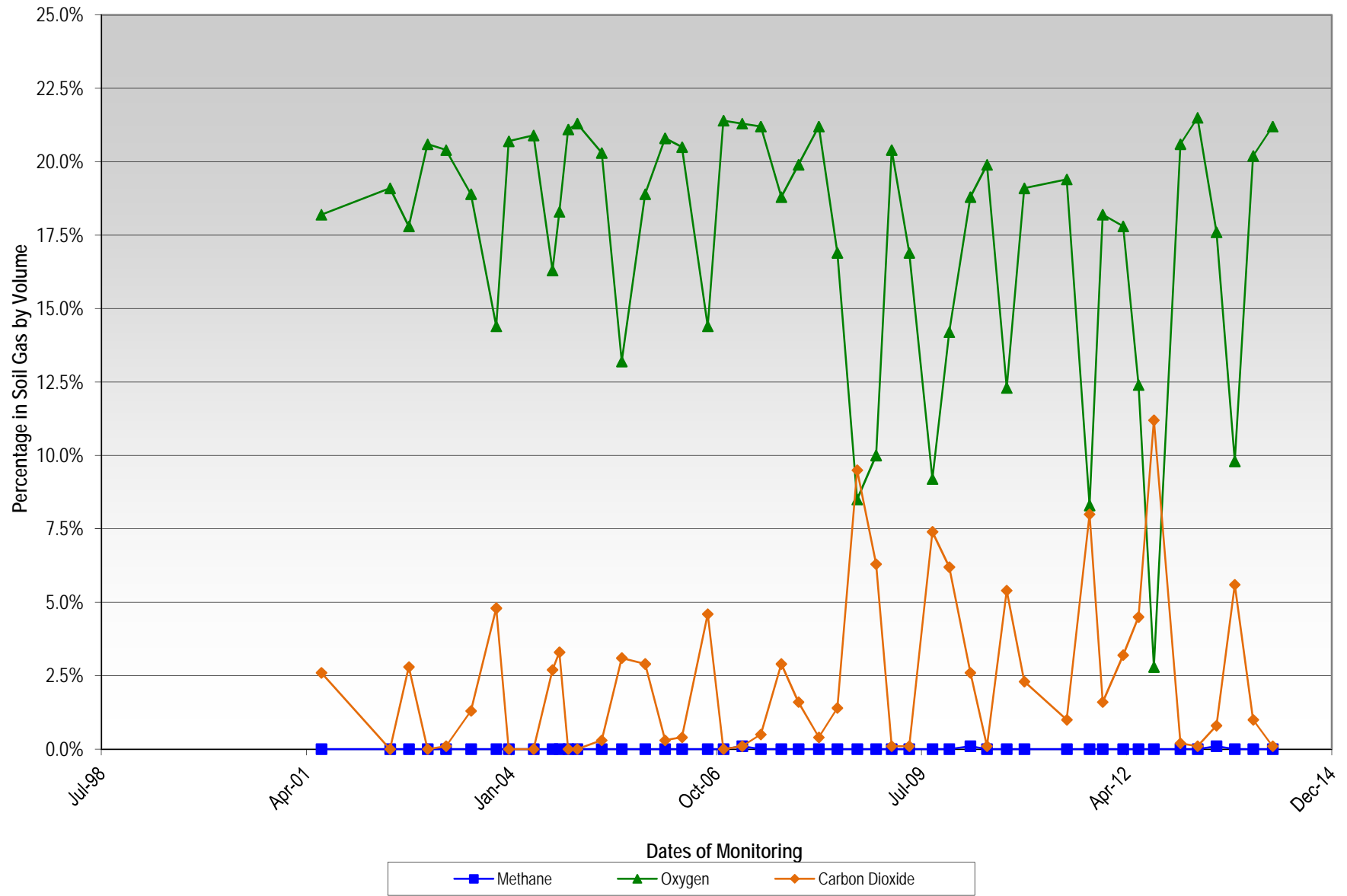
Soil Gas Well MG2
 Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island



Soil Gas Well WB1
 Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island



Soil Gas Well WB15
 Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island



Soil Gas MPL 7
 Fluctuation in Methane, Oxygen, Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island

