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ENVIRONMENTAL

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

Subject: June 2014 Quarterly Monitoring Report for Springfield Street School Complex

Dear Mr. Crawford:

Date:
October 7, 2014

Contact:
Donna H. Pallister, PE

Phone:
401.738.3887

Email:
Donna.pallister@arcadis-us.com

Our ref:
WK012152.0010

ARCADIS US, Inc. (ARCADIS) conducted quarterly monitoring of soil gas, indoor air, the cap, and the sub-slab ventilation system between June 10, 2014 and July 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 July 10, 2014 for evidence of significant soil cover erosion, or for any areas of settling and depression.

The orange indicator barrier was not observed during the inspection, and there was no evidence of significant settling or cover erosion in need of repair.

SUB-SLAB VENTILATION SYSTEM

Field Monitoring

The sub-slab ventilation system was inspected by ARCADIS during the quarterly monitoring on June 10, 2014. The two elementary school blowers and one of the two middle school blowers were operating normally upon arrival. The second middle school blower, middle school back, was not operating due to damage to the piping to

the carbon filters. The piping was repaired and the middle school back blower was restarted by ARCADIS on June 17th, 2014, monitored on July 1, 2014, and sampled July 16, 2014.

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, and hydrogen sulfide were not detected in any of the samples. Organic vapors were detected at 0.3 ppmv at the inlet and effluent at the middle school back blower; both of the sample concentrations were less than the RAWP Action Level of 5 ppm. Carbon dioxide was detected at concentrations of 0.2 to 0.3% at the middle school front blower and both elementary school blowers; all five 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) and CT DEEP Proposed Residential Volatilization Criteria for Soil Vapor are provided in Table 2 for comparison purposes. The OSHA PELs 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 and the CT DEEP Proposed Residential Volatilization Criteria.

INDOOR AIR MONITORING

Indoor air monitoring was conducted on June 13, 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 June 13, 2013 was approximately 70 ^{o}F with scattered showers.

All readings were below the RAWP Action Levels. Methane, carbon monoxide, hydrogen sulfide, and organic vapors were not detected. Carbon dioxide was detected at concentrations between 682 and 936 ppm. As noted below, these readings are within the expected range for indoor air levels of carbon dioxide in an occupied building.

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 CO_2 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 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 June 13, 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 June 10, 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 analyte detected in any of the wells was chloroform which was detected in a sample collected from monitoring well MW-6 at a concentration of 2.1 µg/L. There is no GB groundwater standard for chloroform. 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 June 10, 2014.

SOIL GAS MONITORING

Soil gas monitoring was conducted at 29 locations on June 10, 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 MG-1 at a concentration of 0.1%. The Remedial Action Work Plan (RAWP) Action level for methane is 0.5%; therefore the RAWP action level was not exceeded. MG-1 is located near the northeast corner of the middle school. Methane has not been detected in this location previously. Methane was not detected in the other nearby sampling locations, e.g. MG-2, during the sampling event on June 10th, 2014. Carbon dioxide was measured at MG1 at 2.0% and oxygen was measured at 17.9%. These concentrations are not indicative of methanogenic conditions, and therefore this reading is believed to be an anomaly.

Methane had previously been detected above the RAWP action levels in the soil gas in monitoring events on March 21, 2014 in MPL-7 and on March 24, 2014 in MPL-6. Methane was again detected above the RAWP action levels in the soil gas in MPL-6 and MPL-6 in the sampling events on March 29th, April 4th, and April 16th, 2014. However, methane was not detected in the subsequent monitoring events on May 29th, 2014 and June 10th, 2014. This location had been affected by a natural gas leak in Hartford Avenue in the past.

Carbon dioxide was detected in soil gas at concentrations ranging from 0.0% to 12.6% during the June monitoring event. The carbon dioxide RAWP action level of 0.1% was exceeded at every monitoring point, except WB-4 and WB-5. The maximum concentration detected during the June 2014 monitoring round was 12.6%, which was higher than the maximum detected during the March 2014 round of 7.7%. 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.

VACUUM TESTING

Vacuum testing was conducted on July 1st, 2014 to confirm negative pressure in the soil gas around the occupied buildings. The measurements are performed to assess whether the subslab ventilation system is functioning as designed. The testing confirmed the sub-slab ventilation system is performing as designed.

CONCLUSIONS

Methane, hydrogen sulfide, carbon monoxide and organic vapor concentrations did not exceed RAWP action levels in any soil gas or indoor air samples in this quarterly round of sampling. Carbon dioxide concentrations exceeded the action level at 27 soil gas locations, sub slab system monitoring points. 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.

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.

Donna H. Pallister, PE, LSP
Principal 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

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	21.3	0	0	0.0
Elementary School inlet 2	0.0	0.3	21.3	0	0	0.0
Elementary School Outlet	0.0	0.3	21.3	0	0	0.0
Middle School front shed inlet	0.0	0.2	21.5	0	0	0.0
Middle School front shed after 2nd carbon	0.0	0.2	21.5	0	0	0.0
Middle School back shed inlet	0.0	0.0	20.6	0	0	0.3
Middle School back shed after 2nd carbon	0.0	0.0	20.4	0	0	0.3
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: June 10, 2014 (Sampling and Monitoring Elementary School and Middle School Front), July 1, 2014 (Monitoring Middle School Back), and July 16, 2014 (Middle School Back)

Measured by: Andrew DaSilva (Sampling June 10, 2014), Allison Murphy (Sampling June 10, 2014 and July 16, 2014), and Miguel Cardozo (Monitoring July 1, 2014)

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

Parameter	Sample Date	CT DEEP Proposed Residental Volatization 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
	6/10/14 and 7/01/14			0.42	0.52	0.45	ND
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
	6/10/14 and 7/01/14			0.46	0.68	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
	6/10/14 and 7/01/14			0.46	ND	1.9	1.9
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
	6/10/14 and 7/01/14			1.2	ND	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
	3/20/2013			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
	6/10/14 and 7/01/14			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
	6/10/14 and 7/01/14			4.6	6.9	4.1	4.1
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
	6/10/14 and 7/01/14			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
	6/10/14 and 7/01/14			5.4	6.1	ND	0.91
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
	6/10/14 and 7/01/14			0.29	0.52	ND	ND
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
	6/10/14 and 7/01/14			6.2	12	11	11
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
	6/10/14 and 7/01/14			56	13	5.3	5
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
	6/10/14 and 7/01/14			3.2	5.6	3.3	4.2
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
	6/10/14 and 7/01/14			51	33	13	10
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
	6/10/14 and 7/01/14			0.35	0.71	0.59	0.54
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
	6/10/14 and 7/01/14			4	10	15	8.1
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
	6/10/14 and 7/01/14			0.35	ND	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
	6/10/14 and 7/01/14			1.1	2.2	1.6	1.8
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
	6/10/14 and 7/01/14			0.66	1.1	0.84	0.83

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 Permissable Exposure Limits
CT DEEP= Connecticut Dpeartment of Energy and 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
June 13, 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	692	21.7	0	0	0.0
E.S. Front Stairs	0.0	771	21.7	0	0	0.0
E.S. Faculty Work Room	0.0	819	21.7	0	0	0.0
E.S. Gym	0.0	936	21.7	0	0	0.0
E.S. Stairway B	0.0	741	21.7	0	0	0.0
E.S. Stairway C	0.0	852	21.8	0	0	0.0
E.S. Library	0.0	864	21.7	0	0	0.0
E.S. Room 108	0.0	887	21.8	0	0	0.0
E.S. Cafeteria	0.0	817	21.8	0	0	0.0
E.S. Hall Near Gym	0.0	857	21.7	0	0	0.0
E.S. Electricity Closet	0.0	836	21.7	0	0	0.0

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
June 13, 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	742	21.7	0	0	0.0
M.S. Elevator	0.0	766	21.7	0	0	0.0
M.S. Stairway near Elem. School **GS-01**	0.0	739	21.6	0	0	0.0
M.S.-GS-02	0.0	750	21.6	0	0	0.0
M.S. Sensor #16 - Outside Cafeteria	0.0	752	21.7	0	0	0.0
M.S. Faculty Room	0.0	781	21.7	0	0	0.0
M.S. Sensor #15 Outside Gym	0.0	682	21.7	0	0	0.0
M.S. GS-03 Near Boys Bathroom	0.0	710	21.7	0	0	0.0
M.S. Second Floor -Library	0.0	766	21.7	0	0	0.0
M.S. Janitor Office	0.0	808	21.8	0	0	0.0
M.S. Cafeteria	0.0	700	21.8	0	0	0.0
M.S. GS-13 Gym	0.0	721	21.7	0	0	0.0
M.S. Janitor Closet	0.0	723	21.7	0	0	0.0

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
June 13, 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	696	21.7	0	0	0.0
M.S. Hallway across from elevator near sensor #9	0.0	723	21.7	0	0	0.0
M.S. Near sensor GS 06 hallway right end	0.0	822	21.7	0	0	0.0
M.S. stairway near Hartford Ave. sensor GS-7	0.0	766	21.7	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: Approximately 70 ˚F and rain showers.

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	6/10/2014	
ATC-1																				
	Benzene	ND	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	ND	NA
	sec-Butylbenzene	ND	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	ND	NA
	Ethylbenzene	ND	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	ND	NA
	n-Propylbenzene	ND	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	ND	5000
	Trichloroethylene	ND	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	ND	1700
	1,2,4-Trimethylbenzene	ND	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	ND	NA
	Xylenes	ND	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	ND	NA
ATC-2																				
	Chloroform	NS	NS	NS	NS	NS	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	NA
							4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	
MW-6																				
	Chloroform						ND	2.0	ND	ND	ND	2.2	ND	ND	2.9	2.5	NS	ND	2.1	NA
Installed 4/2011																				
ATC-3																				
	Toluene	NS	NS	NS	NS	NS	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	1700
							4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	
MW-7							ND	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	ND	140
	Chlorobenzene	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	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	ND	NA
	MTBE	ND	ND	ND	ND	NS	NS	ND	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	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	ND	NA
	Trichloroethylene	ND	ND	ND	ND	NS	NS	1.1	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	540
ATC-5																				
	MTBE	ND	ND	NS	NS	NS	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	5000
	Chloroform	ND	ND	NS	NS	NS	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	4/2011	NA
MW-8							ND	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	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
June 10, 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	2.2	18.5	0	0	0.0
WB-2	0.0	0.9	20.9	0	0	0.0
WB-3	0.0	0.1	21.8	0	0	0.0
WB-4	0.0	0.0	21.7	0	0	0.0
WB-5	0.0	0.0	21.7	0	0	0.0
WB-6	0.0	0.1	21.6	0	0	0.0
WB-7 R	0.0	0.1	21.6	0	0	0.0
WB-8	0.0	0.8	20.7	0	0	0.0
WB-12	0.0	2.0	19.4	0	0	0.0
WB-13	0.0	0.7	20.1	0	0	0.0
WB-14	0.0	0.2	21.0	0	0	0.0
WB-15	0.0	5.3	12.3	0	0	0.0
EPL-1	0.0	0.8	20.7	0	0	0.0
EPL-2	0.0	1.9	19.1	0	0	0.0
EPL-3	0.0	2.7	17.1	0	0	0.0
EPL-4	0.0	2.1	19.0	0	0	0.0
EPL-5	0.0	2.3	18.5	0	0	0.0
ENE-1	0.0	3.4	16.0	0	0	0.0

Table 5
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
June 10, 2014

Monitoring Well	Methane % by volume	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
MG1	0.1	2.0	17.9	0	0	0.0
MG2	0.0	1.5	18.9	0	0	0.0
MG3	0.0	1.7	19.0	0	0	0.0
MG4	0.0	1.3	18.5	0	0	0.0
MG5	0.0	2.4	17.0	0	0	0.0
MPL2	0.0	2.9	16.6	0	0	0.0
MPL3	0.0	4.8	13.1	0	0	0.0
MPL5	0.0	5.8	13.3	0	0	0.0
MPL6	0.0	10.9	5.9	0	0	0.0
MPL7	0.0	12.6	3.5	0	0	0.0
MPL8	0.0	4.0	15.7	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 and Allison Murphy

Weather Conditions: Cloudy, 70 degrees Fahrenheit

Sampling Equipment: Landtec GEM 2000 Plus, MiniRae 2000 PID

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Figures

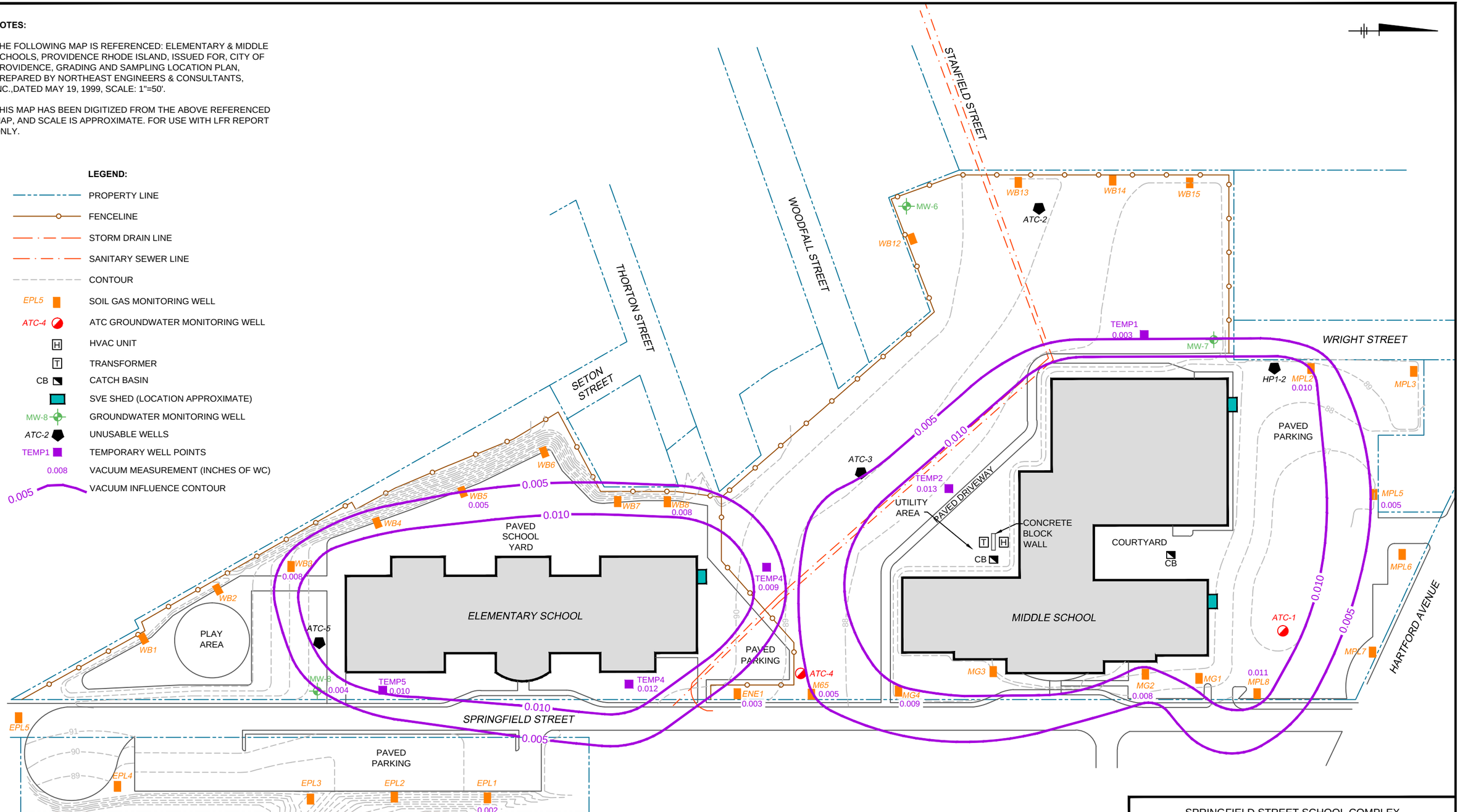
NOTES:

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
- H — HVAC UNIT
- T — TRANSFORMER
- CB — CATCH BASIN
- SVE SHED (LOCATION APPROXIMATE)
- MW-8 — GROUNDWATER MONITORING WELL
- ATC-2 — UNUSABLE WELLS
- TEMP1 — TEMPORARY WELL POINTS
- 0.008 — VACUUM MEASUREMENT (INCHES OF WC)
- 0.005 — VACUUM INFLUENCE CONTOUR



0 100' 200'

GRAPHIC SCALE

SPRINGFIELD STREET SCHOOL COMPLEX
SPRINGFIELD STREET
PROVIDENCE, RHODE ISLAND

AREA OF VACUUM INFLUENCE

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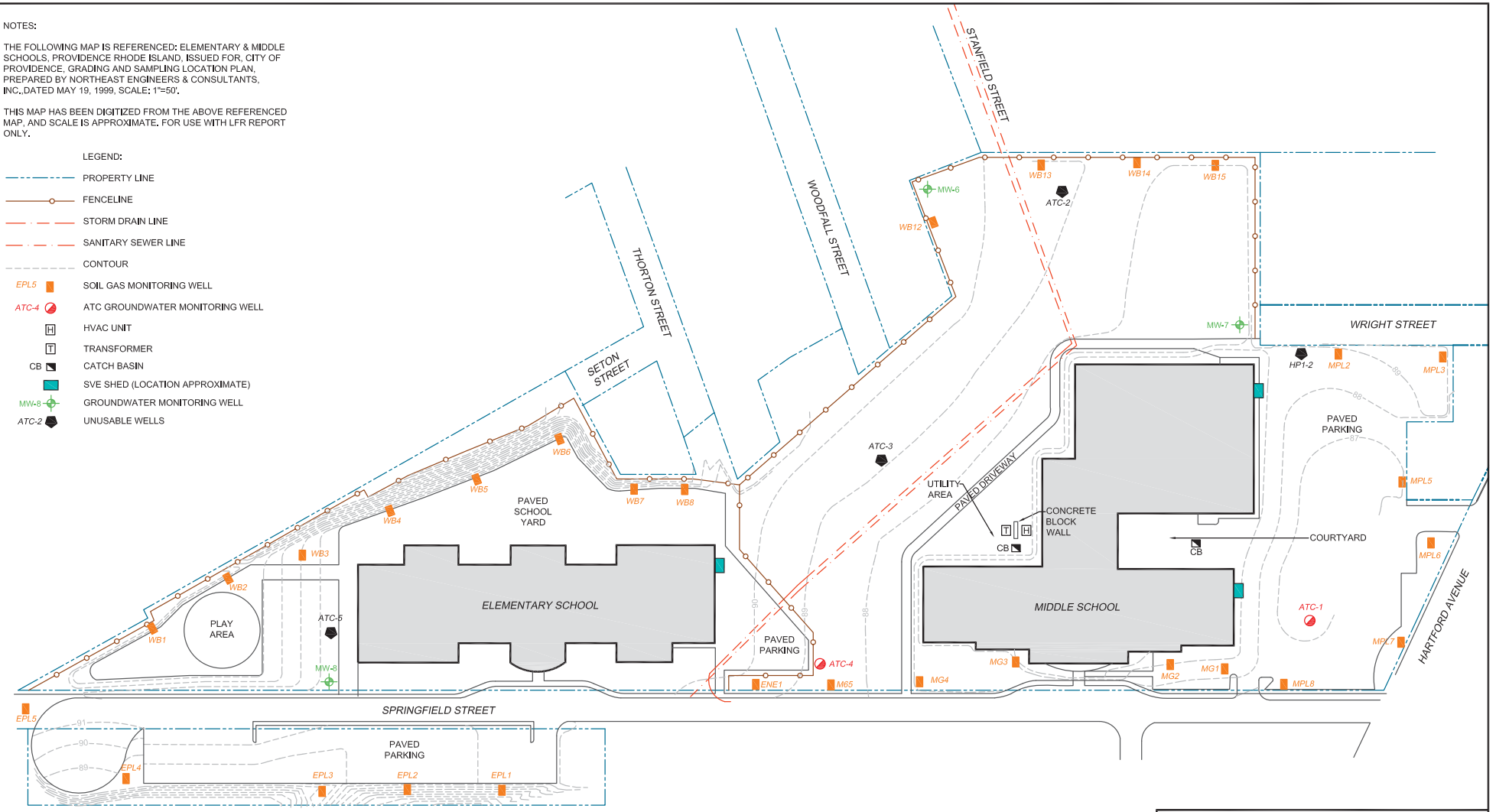
FIGURE 1

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.



SPRINGFIELD STREET SCHOOL COMPLEX
SPRINGFIELD STREET
PROVIDENCE, RHODE ISLAND

SITE PLAN

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FIGURE
2

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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.

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Appendix B

Laboratory Results

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 18, 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: WK012152.0009
Laboratory Work Order Number: 14F0484

Enclosed are results of analyses for samples received by the laboratory on June 11, 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: 6/18/2014

PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER: WK012152.0009

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14F0484

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
ATC-1	14F0484-01	Ground Water		SW-846 8260C	
MW-7	14F0484-02	Ground Water		SW-846 8260C	
MW-6	14F0484-03	Ground Water		SW-846 8260C	
ATC-4	14F0484-04	Ground Water		SW-846 8260C	
MW-8	14F0484-05	Ground Water		SW-846 8260C	
Trip Blank	14F0484-06	Trip Blank Water		SW-846 8260C	

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

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:

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:

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

14F0484-01[ATC-1], 14F0484-02[MW-7], 14F0484-03[MW-6], 14F0484-04[ATC-4], 14F0484-05[MW-8], 14F0484-06[Trip Blank], B097646-BLK1, B097646-BS1, B097646-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

14F0484-01[ATC-1], 14F0484-02[MW-7], 14F0484-03[MW-6], 14F0484-04[ATC-4], 14F0484-05[MW-8], 14F0484-06[Trip Blank], B097646-BLK1, B097646-BS1, B097646-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.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: ATC-1 | Sampled: 6/10/2014 08:45

Sample ID: 14F0484-01

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	6/12/14	6/12/14 14:53	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 14:53	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Chloromethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: ATC-1 | Sampled: 6/10/2014 08:45

Sample ID: 14F0484-01

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	6/12/14	6/12/14 14:53	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:53	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	107	70-130			6/12/14 14:53
Toluene-d8	99.1	70-130			6/12/14 14:53
4-Bromofluorobenzene	95.3	70-130			6/12/14 14:53

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: MW-7 | Sampled: 6/10/2014 10:00

Sample ID: 14F0484-02

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	6/12/14	6/12/14 15:20	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 15:20	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Chloromethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: MW-7 | Sampled: 6/10/2014 10:00

Sample ID: 14F0484-02

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	6/12/14	6/12/14 15:20	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:20	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	109	70-130			6/12/14 15:20
Toluene-d8	99.6	70-130			6/12/14 15:20
4-Bromofluorobenzene	93.8	70-130			6/12/14 15:20

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: MW-6 | Sampled: 6/10/2014 11:00

Sample ID: 14F0484-03

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	6/12/14	6/12/14 15:47	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 15:47	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Chloroform	2.1	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Chloromethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: MW-6 | Sampled: 6/10/2014 11:00

Sample ID: 14F0484-03

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	6/12/14	6/12/14 15:47	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 15:47	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	107	70-130			6/12/14 15:47
Toluene-d8	101	70-130			6/12/14 15:47
4-Bromofluorobenzene	92.7	70-130			6/12/14 15:47

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: ATC-4 | Sampled: 6/10/2014 12:10

Sample ID: 14F0484-04

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	6/12/14	6/12/14 16:13	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 16:13	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Chloromethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: ATC-4 | Sampled: 6/10/2014 12:10

Sample ID: 14F0484-04

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	6/12/14	6/12/14 16:13	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:13	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	108	70-130		6/12/14	16:13
Toluene-d8	99.6	70-130		6/12/14	16:13
4-Bromofluorobenzene	95.1	70-130		6/12/14	16:13

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: MW-8 | Sampled: 6/10/2014 13:40

Sample ID: 14F0484-05

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	6/12/14	6/12/14 16:40	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 16:40	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Chloromethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: MW-8 | Sampled: 6/10/2014 13:40

Sample ID: 14F0484-05

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	6/12/14	6/12/14 16:40	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 16:40	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	104	70-130		6/12/14	16:40
Toluene-d8	101	70-130		6/12/14	16:40
4-Bromofluorobenzene	93.3	70-130		6/12/14	16:40

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: Trip Blank | Sampled: 6/10/2014 00:00

Sample ID: 14F0484-06

Sample Matrix: Trip Blank 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	6/12/14	6/12/14 14:27	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 14:27	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Chloromethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2-Dichloroethane	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield St, Providence, RI | Sample Description: | Work Order: 14F0484

Date Received: 6/11/2014

Field Sample #: Trip Blank | Sampled: 6/10/2014 00:00

Sample ID: 14F0484-06

Sample Matrix: Trip Blank 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	6/12/14	6/12/14 14:27	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Tetrahydrofuran	ND	10	µg/L	1	V-16	SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/12/14	6/12/14 14:27	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
1,2-Dichloroethane-d4	109	70-130			6/12/14 14:27
Toluene-d8	99.0	70-130			6/12/14 14:27
4-Bromofluorobenzene	94.6	70-130			6/12/14 14:27

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

Sample Extraction Data

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
14F0484-01 [ATC-1]	B097646	5	5.00	06/12/14
14F0484-02 [MW-7]	B097646	5	5.00	06/12/14
14F0484-03 [MW-6]	B097646	5	5.00	06/12/14
14F0484-04 [ATC-4]	B097646	5	5.00	06/12/14
14F0484-05 [MW-8]	B097646	5	5.00	06/12/14
14F0484-06 [Trip Blank]	B097646	5	5.00	06/12/14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

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 B097646 - SW-846 5030B										
Blank (B097646-BLK1)				Prepared & Analyzed: 06/12/14						
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-05, 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	5.0	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-05, 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							

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

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 B097646 - SW-846 5030B											
Blank (B097646-BLK1)				Prepared & Analyzed: 06/12/14							
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	*27.0*		µg/L	25.0		108	70-130				
Surrogate: Toluene-d8	*25.0*		µg/L	25.0		100	70-130				
Surrogate: 4-Bromofluorobenzene	*23.4*		µg/L	25.0		93.4	70-130				
LCS (B097646-BS1)				Prepared & Analyzed: 06/12/14							
Acetone	92.1	50	µg/L	100		92.1	70-160				†
Acrylonitrile	8.66	5.0	µg/L	10.0		86.6	70-130				
tert-Amyl Methyl Ether (TAME)	10.6	0.50	µg/L	10.0		106	70-130				
Benzene	11.3	1.0	µg/L	10.0		113	70-130				
Bromobenzene	10.1	1.0	µg/L	10.0		101	70-130				
Bromochloromethane	11.7	1.0	µg/L	10.0		117	70-130				
Bromodichloromethane	10.1	0.50	µg/L	10.0		101	70-130				
Bromoform	12.0	1.0	µg/L	10.0		120	70-130				
Bromomethane	5.99	2.0	µg/L	10.0		59.9	40-160				†
2-Butanone (MEK)	91.4	20	µg/L	100		91.4	40-160				†
tert-Butyl Alcohol (TBA)	79.4	20	µg/L	100		79.4	40-160			V-05, V-16	†
n-Butylbenzene	12.4	1.0	µg/L	10.0		124	70-130				
sec-Butylbenzene	11.3	1.0	µg/L	10.0		113	70-130				
tert-Butylbenzene	11.3	1.0	µg/L	10.0		113	70-130				
tert-Butyl Ethyl Ether (TBEE)	11.2	0.50	µg/L	10.0		112	70-130				
Carbon Disulfide	10.9	4.0	µg/L	10.0		109	70-130				
Carbon Tetrachloride	11.8	5.0	µg/L	10.0		118	70-130				
Chlorobenzene	9.85	1.0	µg/L	10.0		98.5	70-130				
Chlorodibromomethane	9.66	0.50	µg/L	10.0		96.6	70-130				
Chloroethane	11.2	2.0	µg/L	10.0		112	70-130				
Chloroform	10.6	2.0	µg/L	10.0		106	70-130				
Chloromethane	7.53	5.0	µg/L	10.0		75.3	40-160				†
2-Chlorotoluene	9.22	1.0	µg/L	10.0		92.2	70-130				

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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 B097646 - SW-846 5030B											
LCS (B097646-BS1)				Prepared & Analyzed: 06/12/14							
4-Chlorotoluene	9.96	1.0	µg/L	10.0		99.6	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	10.2	5.0	µg/L	10.0		102	70-130				
1,2-Dibromoethane (EDB)	10.6	0.50	µg/L	10.0		106	70-130				
Dibromomethane	10.7	1.0	µg/L	10.0		107	70-130				
1,2-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130				
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130				
1,4-Dichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130				
trans-1,4-Dichloro-2-butene	11.9	2.0	µg/L	10.0		119	70-130				
Dichlorodifluoromethane (Freon 12)	10.7	2.0	µg/L	10.0		107	40-160				†
1,1-Dichloroethane	11.5	1.0	µg/L	10.0		115	70-130				
1,2-Dichloroethane	9.99	5.0	µg/L	10.0		99.9	70-130				
1,1-Dichloroethylene	9.59	1.0	µg/L	10.0		95.9	70-130				
cis-1,2-Dichloroethylene	10.6	1.0	µg/L	10.0		106	70-130				
trans-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130				
1,2-Dichloropropane	10.4	1.0	µg/L	10.0		104	70-130				
1,3-Dichloropropane	10.6	0.50	µg/L	10.0		106	70-130				
2,2-Dichloropropane	12.0	1.0	µg/L	10.0		120	40-130				†
1,1-Dichloropropene	11.7	2.0	µg/L	10.0		117	70-130				
cis-1,3-Dichloropropene	10.4	0.50	µg/L	10.0		104	70-130				
trans-1,3-Dichloropropene	11.3	0.50	µg/L	10.0		113	70-130				
Diethyl Ether	10.6	2.0	µg/L	10.0		106	70-130				
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0		101	70-130				
1,4-Dioxane	90.9	50	µg/L	100		90.9	40-130			V-05, V-16	†
Ethylbenzene	10.7	1.0	µg/L	10.0		107	70-130				
Hexachlorobutadiene	10.8	0.50	µg/L	10.0		108	70-130				
2-Hexanone (MBK)	86.6	10	µg/L	100		86.6	70-160				†
Isopropylbenzene (Cumene)	10.1	1.0	µg/L	10.0		101	70-130				
p-Isopropyltoluene (p-Cymene)	11.8	1.0	µg/L	10.0		118	70-130				
Methyl tert-Butyl Ether (MTBE)	11.2	1.0	µg/L	10.0		112	70-130				
Methylene Chloride	10.2	5.0	µg/L	10.0		102	70-130				
4-Methyl-2-pentanone (MIBK)	87.8	10	µg/L	100		87.8	70-160				†
Naphthalene	12.4	2.0	µg/L	10.0		124	40-130				†
n-Propylbenzene	10.5	1.0	µg/L	10.0		105	70-130				
Styrene	10.3	1.0	µg/L	10.0		103	70-130				
1,1,1,2-Tetrachloroethane	10.3	1.0	µg/L	10.0		103	70-130				
1,1,2,2-Tetrachloroethane	10.9	0.50	µg/L	10.0		109	70-130				
Tetrachloroethylene	9.89	1.0	µg/L	10.0		98.9	70-130				
Tetrahydrofuran	11.2	10	µg/L	10.0		112	70-130			V-16	
Toluene	10.1	1.0	µg/L	10.0		101	70-130				
1,2,3-Trichlorobenzene	11.6	5.0	µg/L	10.0		116	70-130				
1,2,4-Trichlorobenzene	11.3	1.0	µg/L	10.0		113	70-130				
1,3,5-Trichlorobenzene	11.2	1.0	µg/L	10.0		112	70-130				
1,1,1-Trichloroethane	11.4	1.0	µg/L	10.0		114	70-130				
1,1,2-Trichloroethane	10.5	1.0	µg/L	10.0		105	70-130				
Trichloroethylene	10.7	1.0	µg/L	10.0		107	70-130				
Trichlorofluoromethane (Freon 11)	10.7	2.0	µg/L	10.0		107	70-130				
1,2,3-Trichloropropane	10.7	2.0	µg/L	10.0		107	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.1	1.0	µg/L	10.0		111	70-130				
1,2,4-Trimethylbenzene	11.6	1.0	µg/L	10.0		116	70-130				
1,3,5-Trimethylbenzene	10.4	1.0	µg/L	10.0		104	70-130				
Vinyl Chloride	10.2	2.0	µg/L	10.0		102	40-160				†

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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 B097646 - SW-846 5030B											
LCS (B097646-BS1)				Prepared & Analyzed: 06/12/14							
m+p Xylene	20.5	2.0	µg/L	20.0		103	70-130				
o-Xylene	10.2	1.0	µg/L	10.0		102	70-130				
Surrogate: 1,2-Dichloroethane-d4	*26.1*		µg/L	25.0		104	70-130				
Surrogate: Toluene-d8	*24.4*		µg/L	25.0		97.5	70-130				
Surrogate: 4-Bromofluorobenzene	*23.6*		µg/L	25.0		94.2	70-130				
LCS Dup (B097646-BSD1)				Prepared & Analyzed: 06/12/14							
Acetone	84.7	50	µg/L	100		84.7	70-160	8.35	25		†
Acrylonitrile	7.90	5.0	µg/L	10.0		79.0	70-130	9.18	25		
tert-Amyl Methyl Ether (TAME)	10.6	0.50	µg/L	10.0		106	70-130	0.283	25		
Benzene	11.6	1.0	µg/L	10.0		116	70-130	2.18	25		
Bromobenzene	10.2	1.0	µg/L	10.0		102	70-130	1.28	25		
Bromochloromethane	12.0	1.0	µg/L	10.0		120	70-130	2.78	25		
Bromodichloromethane	10.5	0.50	µg/L	10.0		105	70-130	4.27	25		
Bromoform	11.2	1.0	µg/L	10.0		112	70-130	6.71	25		
Bromomethane	7.16	2.0	µg/L	10.0		71.6	40-160	17.8	25		†
2-Butanone (MEK)	83.9	20	µg/L	100		83.9	40-160	8.48	25		†
tert-Butyl Alcohol (TBA)	69.3	20	µg/L	100		69.3	40-160	13.5	25	V-05, V-16	†
n-Butylbenzene	12.2	1.0	µg/L	10.0		122	70-130	1.46	25		
sec-Butylbenzene	11.4	1.0	µg/L	10.0		114	70-130	0.880	25		
tert-Butylbenzene	11.2	1.0	µg/L	10.0		112	70-130	0.979	25		
tert-Butyl Ethyl Ether (TBEE)	11.6	0.50	µg/L	10.0		116	70-130	3.78	25		
Carbon Disulfide	11.6	4.0	µg/L	10.0		116	70-130	5.68	25		
Carbon Tetrachloride	11.9	5.0	µg/L	10.0		119	70-130	0.760	25		
Chlorobenzene	10.0	1.0	µg/L	10.0		100	70-130	1.91	25		
Chlorodibromomethane	9.53	0.50	µg/L	10.0		95.3	70-130	1.35	25		
Chloroethane	11.7	2.0	µg/L	10.0		117	70-130	4.72	25		
Chloroform	10.8	2.0	µg/L	10.0		108	70-130	2.80	25		
Chloromethane	9.24	5.0	µg/L	10.0		92.4	40-160	20.4	25		†
2-Chlorotoluene	9.30	1.0	µg/L	10.0		93.0	70-130	0.864	25		
4-Chlorotoluene	10.2	1.0	µg/L	10.0		102	70-130	2.38	25		
1,2-Dibromo-3-chloropropane (DBCP)	9.59	5.0	µg/L	10.0		95.9	70-130	6.26	25		
1,2-Dibromoethane (EDB)	10.4	0.50	µg/L	10.0		104	70-130	1.14	25		
Dibromomethane	10.5	1.0	µg/L	10.0		105	70-130	2.26	25		
1,2-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	1.17	25		
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	1.76	25		
1,4-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130	1.04	25		
trans-1,4-Dichloro-2-butene	11.1	2.0	µg/L	10.0		111	70-130	7.65	25		
Dichlorodifluoromethane (Freon 12)	11.1	2.0	µg/L	10.0		111	40-160	3.12	25		†
1,1-Dichloroethane	11.6	1.0	µg/L	10.0		116	70-130	1.47	25		
1,2-Dichloroethane	9.94	5.0	µg/L	10.0		99.4	70-130	0.502	25		
1,1-Dichloroethylene	9.90	1.0	µg/L	10.0		99.0	70-130	3.18	25		
cis-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130	1.40	25		
trans-1,2-Dichloroethylene	11.1	1.0	µg/L	10.0		111	70-130	3.10	25		
1,2-Dichloropropane	10.6	1.0	µg/L	10.0		106	70-130	2.18	25		
1,3-Dichloropropane	10.4	0.50	µg/L	10.0		104	70-130	1.52	25		
2,2-Dichloropropane	11.8	1.0	µg/L	10.0		118	40-130	1.94	25		†
1,1-Dichloropropene	12.0	2.0	µg/L	10.0		120	70-130	2.19	25		
cis-1,3-Dichloropropene	10.6	0.50	µg/L	10.0		106	70-130	1.33	25		
trans-1,3-Dichloropropene	11.3	0.50	µg/L	10.0		113	70-130	0.354	25		
Diethyl Ether	11.4	2.0	µg/L	10.0		114	70-130	6.90	25		
Diisopropyl Ether (DIPE)	10.4	0.50	µg/L	10.0		104	70-130	2.34	25		

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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 B097646 - SW-846 5030B											
LCS Dup (B097646-BSD1)				Prepared & Analyzed: 06/12/14							
1,4-Dioxane	70.4	50	µg/L	100		70.4	40-130	25.5	50	V-05, V-16	† ‡
Ethylbenzene	10.8	1.0	µg/L	10.0		108	70-130	0.466	25		
Hexachlorobutadiene	10.5	0.50	µg/L	10.0		105	70-130	3.00	25		
2-Hexanone (MBK)	80.9	10	µg/L	100		80.9	70-160	6.86	25		†
Isopropylbenzene (Cumene)	10.1	1.0	µg/L	10.0		101	70-130	0.198	25		
p-Isopropyltoluene (p-Cymene)	11.8	1.0	µg/L	10.0		118	70-130	0.679	25		
Methyl tert-Butyl Ether (MTBE)	11.1	1.0	µg/L	10.0		111	70-130	1.16	25		
Methylene Chloride	10.9	5.0	µg/L	10.0		109	70-130	6.82	25		
4-Methyl-2-pentanone (MIBK)	81.2	10	µg/L	100		81.2	70-160	7.83	25		†
Naphthalene	10.9	2.0	µg/L	10.0		109	40-130	13.2	25		†
n-Propylbenzene	10.5	1.0	µg/L	10.0		105	70-130	0.762	25		
Styrene	10.5	1.0	µg/L	10.0		105	70-130	2.31	25		
1,1,1,2-Tetrachloroethane	10.6	1.0	µg/L	10.0		106	70-130	2.95	25		
1,1,2,2-Tetrachloroethane	10.2	0.50	µg/L	10.0		102	70-130	6.24	25		
Tetrachloroethylene	9.94	1.0	µg/L	10.0		99.4	70-130	0.504	25		
Tetrahydrofuran	10.4	10	µg/L	10.0		104	70-130	6.93	25	V-16	
Toluene	10.3	1.0	µg/L	10.0		103	70-130	2.15	25		
1,2,3-Trichlorobenzene	11.0	5.0	µg/L	10.0		110	70-130	5.05	25		
1,2,4-Trichlorobenzene	11.3	1.0	µg/L	10.0		113	70-130	0.177	25		
1,3,5-Trichlorobenzene	11.1	1.0	µg/L	10.0		111	70-130	0.449	25		
1,1,1-Trichloroethane	11.7	1.0	µg/L	10.0		117	70-130	3.04	25		
1,1,2-Trichloroethane	10.2	1.0	µg/L	10.0		102	70-130	2.79	25		
Trichloroethylene	11.0	1.0	µg/L	10.0		110	70-130	2.48	25		
Trichlorofluoromethane (Freon 11)	11.2	2.0	µg/L	10.0		112	70-130	4.74	25		
1,2,3-Trichloropropane	9.76	2.0	µg/L	10.0		97.6	70-130	8.81	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6	1.0	µg/L	10.0		116	70-130	4.06	25		
1,2,4-Trimethylbenzene	11.7	1.0	µg/L	10.0		117	70-130	1.20	25		
1,3,5-Trimethylbenzene	10.5	1.0	µg/L	10.0		105	70-130	0.575	25		
Vinyl Chloride	9.83	2.0	µg/L	10.0		98.3	40-160	4.09	25		†
m+p Xylene	20.6	2.0	µg/L	20.0		103	70-130	0.292	25		
o-Xylene	10.2	1.0	µg/L	10.0		102	70-130	0.0980	25		
Surrogate: 1,2-Dichloroethane-d4	*26.8*		µg/L	25.0		107	70-130				
Surrogate: Toluene-d8	*24.7*		µg/L	25.0		98.7	70-130				
Surrogate: 4-Bromofluorobenzene	*23.6*		µg/L	25.0		94.5	70-130				

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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.
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.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Water	
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

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Water	
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 Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
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

CHAIN OF CUSTODY RECORD

14F0484

Rev 04.05.12

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Page 1 of

Company Name: ARCADIS
Address: 300 Metro Center Blvd.
Warwick, RI 02886
Attention: Donna Pallister
Project Location: Springfield St., Providence, RI
Sampled By: A. DaSilva

Telephone: 401-738-3887
Project # WR012152.0009
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ☒ WEBSITE
Fax #
Email: donna.pallister@arcadis-us.com
Format: ☒ PDF ☒ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	# of Containers	** Preservation	***Container Co	VOC's 8260B
-01	ATC-1	6/10/14	0845		X	GW	C	3	V	V	X
-02	MW-7		1000		X	GW	C				X
-03	MW-6		1100		X	GW	C				X
-04	ATC-4		1210		X	GW	C				X
-05	MW-8		1340		X	GW	C				X
-06	Trip Blank	—	—	—	—	—					X

ANALYSIS REQUESTED

Dissolved Meta
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

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

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

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) (to ref)	Date/Time: 6/10/14 16:50	
Received by: (signature) 6/11/14	Date/Time: 9:47	
Relinquished by: (signature) 6/11/14	Date/Time: 5:10	
Received by: (signature) 6-11-14 4.5°C	Date/Time: 18:25	

Turnaround ††
☐ 7-Day
☐ 10-Day
☒ Other 5pl
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† 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.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
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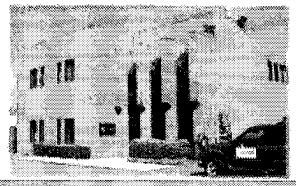

Sample Receipt Checklist

CLIENT NAME: Arcadis **RECEIVED BY:** EZK **DATE:** 6-11-14

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 4.5°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	18	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl 18 # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved

Time and Date Frozen:

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) T/F/NA	Comment
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.	NA	
18) There is sufficient volume for all requsted 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.	NA	
21) Samples do not require splitting or compositing.	T	

Who notified of False statements? **Date/Time:**

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** EZK **Date/Time:** 18:00 6-11-14

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June 18, 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: WK012152.0007
Laboratory Work Order Number: 14F0485

Enclosed are results of analyses for samples received by the laboratory on June 11, 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: 6/18/2014

PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER: WK012152.0007

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14F0485

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
MS Front	14F0485-01	Sub Slab		EPA TO-14A	
ES #1	14F0485-02	Sub Slab		EPA TO-14A	
ES #2	14F0485-03	Sub Slab		EPA TO-14A	

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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:

14F0485-01[MS Front], 14F0485-02[ES #1], 14F0485-03[ES #2]

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dichloropropane

14F0485-01[MS Front], 14F0485-02[ES #1], 14F0485-03[ES #2], B097926-BLK1, B097926-BS1

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Trichlorofluoromethane (Freon 11)

14F0485-01[MS Front], 14F0485-02[ES #1], 14F0485-03[ES #2], B097926-BS1

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

Analyte & Samples(s) Qualified:

Trichlorofluoromethane (Freon 11)

14F0485-01[MS Front], 14F0485-02[ES #1], 14F0485-03[ES #2], B097926-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.

Daren J. Damboragian
Laboratory Manager

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ANALYTICAL RESULTS

Project Location: Springfield St, Providence, RI
Date Received: 6/11/2014
Field Sample #: MS Front
Sample ID: 14F0485-01
Sample Matrix: Sub Slab
Sampled: 6/10/2014 09:00

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

Work Order: 14F0485
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 Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	0.16	0.10		0.52	0.32	2	6/13/14 9:03	WSD
Bromomethane	ND	0.10		ND	0.39	2	6/13/14 9:03	WSD
Carbon Tetrachloride	0.11	0.10		0.68	0.63	2	6/13/14 9:03	WSD
Chlorobenzene	ND	0.10		ND	0.46	2	6/13/14 9:03	WSD
Chloroethane	ND	0.10		ND	0.26	2	6/13/14 9:03	WSD
Chloroform	ND	0.10		ND	0.49	2	6/13/14 9:03	WSD
Chloromethane	ND	0.20		ND	0.41	2	6/13/14 9:03	WSD
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	6/13/14 9:03	WSD
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 9:03	WSD
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 9:03	WSD
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 9:03	WSD
Dichlorodifluoromethane (Freon 12)	1.4	0.10		6.9	0.49	2	6/13/14 9:03	WSD
1,1-Dichloroethane	ND	0.10		ND	0.40	2	6/13/14 9:03	WSD
1,2-Dichloroethane	ND	0.10		ND	0.40	2	6/13/14 9:03	WSD
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	6/13/14 9:03	WSD
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	6/13/14 9:03	WSD
1,2-Dichloropropane	ND	0.10	L-03	ND	0.46	2	6/13/14 9:03	WSD
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	6/13/14 9:03	WSD
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	6/13/14 9:03	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.87	0.10		6.1	0.70	2	6/13/14 9:03	WSD
Ethylbenzene	0.12	0.10		0.52	0.43	2	6/13/14 9:03	WSD
Hexachlorobutadiene	ND	0.10		ND	1.1	2	6/13/14 9:03	WSD
Methylene Chloride	3.4	1.0		12	3.5	2	6/13/14 9:03	WSD
Styrene	3.1	0.10		13	0.43	2	6/13/14 9:03	WSD
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	6/13/14 9:03	WSD
Tetrachloroethylene	0.83	0.10		5.6	0.68	2	6/13/14 9:03	WSD
Toluene	8.8	0.10		33	0.38	2	6/13/14 9:03	WSD
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	6/13/14 9:03	WSD
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	6/13/14 9:03	WSD
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	6/13/14 9:03	WSD
Trichloroethylene	0.13	0.10		0.71	0.54	2	6/13/14 9:03	WSD
Trichlorofluoromethane (Freon 11)	1.8	0.10	L-05, V-06	10	0.56	2	6/13/14 9:03	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	6/13/14 9:03	WSD
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	6/13/14 9:03	WSD
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	6/13/14 9:03	WSD
Vinyl Chloride	ND	0.10		ND	0.26	2	6/13/14 9:03	WSD
m&p-Xylene	0.51	0.20		2.2	0.87	2	6/13/14 9:03	WSD

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ANALYTICAL RESULTS

Project Location: Springfield St, Providence, RI
Date Received: 6/11/2014
Field Sample #: MS Front
Sample ID: 14F0485-01
Sample Matrix: Sub Slab
Sampled: 6/10/2014 09:00

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

Work Order: 14F0485
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 Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
o-Xylene	0.24	0.10		1.1	0.43	2	6/13/14 9:03	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	6/13/14 9:03

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ANALYTICAL RESULTS

Project Location: Springfield St, Providence, RI
Date Received: 6/11/2014
Field Sample #: ES #1
Sample ID: 14F0485-02
Sample Matrix: Sub Slab
Sampled: 6/10/2014 15:00

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

Work Order: 14F0485
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 Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	0.14	0.10		0.45	0.32	2	6/13/14 9:42	WSD
Bromomethane	ND	0.10		ND	0.39	2	6/13/14 9:42	WSD
Carbon Tetrachloride	ND	0.10		ND	0.63	2	6/13/14 9:42	WSD
Chlorobenzene	ND	0.10		ND	0.46	2	6/13/14 9:42	WSD
Chloroethane	ND	0.10		ND	0.26	2	6/13/14 9:42	WSD
Chloroform	0.38	0.10		1.9	0.49	2	6/13/14 9:42	WSD
Chloromethane	ND	0.20		ND	0.41	2	6/13/14 9:42	WSD
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	6/13/14 9:42	WSD
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 9:42	WSD
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 9:42	WSD
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 9:42	WSD
Dichlorodifluoromethane (Freon 12)	0.84	0.10		4.1	0.49	2	6/13/14 9:42	WSD
1,1-Dichloroethane	ND	0.10		ND	0.40	2	6/13/14 9:42	WSD
1,2-Dichloroethane	ND	0.10		ND	0.40	2	6/13/14 9:42	WSD
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	6/13/14 9:42	WSD
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	6/13/14 9:42	WSD
1,2-Dichloropropane	ND	0.10	L-03	ND	0.46	2	6/13/14 9:42	WSD
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	6/13/14 9:42	WSD
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	6/13/14 9:42	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	6/13/14 9:42	WSD
Ethylbenzene	ND	0.10		ND	0.43	2	6/13/14 9:42	WSD
Hexachlorobutadiene	ND	0.10		ND	1.1	2	6/13/14 9:42	WSD
Methylene Chloride	3.3	1.0		11	3.5	2	6/13/14 9:42	WSD
Styrene	1.2	0.10		5.3	0.43	2	6/13/14 9:42	WSD
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	6/13/14 9:42	WSD
Tetrachloroethylene	0.49	0.10		3.3	0.68	2	6/13/14 9:42	WSD
Toluene	3.5	0.10		13	0.38	2	6/13/14 9:42	WSD
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	6/13/14 9:42	WSD
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	6/13/14 9:42	WSD
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	6/13/14 9:42	WSD
Trichloroethylene	0.11	0.10		0.59	0.54	2	6/13/14 9:42	WSD
Trichlorofluoromethane (Freon 11)	2.6	0.10	V-06, L-05	15	0.56	2	6/13/14 9:42	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	6/13/14 9:42	WSD
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	6/13/14 9:42	WSD
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	6/13/14 9:42	WSD
Vinyl Chloride	ND	0.10		ND	0.26	2	6/13/14 9:42	WSD
m&p-Xylene	0.37	0.20		1.6	0.87	2	6/13/14 9:42	WSD

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ANALYTICAL RESULTS

Project Location: Springfield St, Providence, RI
Date Received: 6/11/2014
Field Sample #: ES #1
Sample ID: 14F0485-02
Sample Matrix: Sub Slab
Sampled: 6/10/2014 15:00

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

Work Order: 14F0485
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 Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
o-Xylene	0.19	0.10		0.84	0.43	2	6/13/14 9:42	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	6/13/14 9:42

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ANALYTICAL RESULTS

Project Location: Springfield St, Providence, RI
Date Received: 6/11/2014
Field Sample #: ES #2
Sample ID: 14F0485-03
Sample Matrix: Sub Slab
Sampled: 6/10/2014 15:05

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

Work Order: 14F0485
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 Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	ND	0.10		ND	0.32	2	6/13/14 10:22	WSD
Bromomethane	ND	0.10		ND	0.39	2	6/13/14 10:22	WSD
Carbon Tetrachloride	ND	0.10		ND	0.63	2	6/13/14 10:22	WSD
Chlorobenzene	ND	0.10		ND	0.46	2	6/13/14 10:22	WSD
Chloroethane	ND	0.10		ND	0.26	2	6/13/14 10:22	WSD
Chloroform	0.38	0.10		1.9	0.49	2	6/13/14 10:22	WSD
Chloromethane	ND	0.20		ND	0.41	2	6/13/14 10:22	WSD
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	6/13/14 10:22	WSD
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 10:22	WSD
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 10:22	WSD
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	6/13/14 10:22	WSD
Dichlorodifluoromethane (Freon 12)	0.83	0.10		4.1	0.49	2	6/13/14 10:22	WSD
1,1-Dichloroethane	ND	0.10		ND	0.40	2	6/13/14 10:22	WSD
1,2-Dichloroethane	0.11	0.10		0.44	0.40	2	6/13/14 10:22	WSD
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	6/13/14 10:22	WSD
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	6/13/14 10:22	WSD
1,2-Dichloropropane	ND	0.10	L-03	ND	0.46	2	6/13/14 10:22	WSD
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	6/13/14 10:22	WSD
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	6/13/14 10:22	WSD
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.13	0.10		0.91	0.70	2	6/13/14 10:22	WSD
Ethylbenzene	ND	0.10		ND	0.43	2	6/13/14 10:22	WSD
Hexachlorobutadiene	ND	0.10		ND	1.1	2	6/13/14 10:22	WSD
Methylene Chloride	3.2	1.0		11	3.5	2	6/13/14 10:22	WSD
Styrene	1.2	0.10		5.0	0.43	2	6/13/14 10:22	WSD
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	6/13/14 10:22	WSD
Tetrachloroethylene	0.61	0.10		4.2	0.68	2	6/13/14 10:22	WSD
Toluene	2.7	0.10		10	0.38	2	6/13/14 10:22	WSD
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	6/13/14 10:22	WSD
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	6/13/14 10:22	WSD
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	6/13/14 10:22	WSD
Trichloroethylene	0.10	0.10		0.54	0.54	2	6/13/14 10:22	WSD
Trichlorofluoromethane (Freon 11)	1.4	0.10	L-05, V-06	8.1	0.56	2	6/13/14 10:22	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	6/13/14 10:22	WSD
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	6/13/14 10:22	WSD
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	6/13/14 10:22	WSD
Vinyl Chloride	ND	0.10		ND	0.26	2	6/13/14 10:22	WSD
m&p-Xylene	0.41	0.20		1.8	0.87	2	6/13/14 10:22	WSD

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

ANALYTICAL RESULTS

Project Location: Springfield St, Providence, RI
Date Received: 6/11/2014
Field Sample #: ES #2
Sample ID: 14F0485-03
Sample Matrix: Sub Slab
Sampled: 6/10/2014 15:05

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

Work Order: 14F0485
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 Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
o-Xylene	0.19	0.10		0.83	0.43	2	6/13/14 10:22	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	6/13/14 10:22

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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
14F0485-01 [MS Front]	B097926	1	1	N/A	1000	400	200	06/12/14
14F0485-02 [ES #1]	B097926	1	1	N/A	1000	400	200	06/12/14
14F0485-03 [ES #2]	B097926	1	1	N/A	1000	400	200	06/12/14

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B097926 - TO-15 Prep											
Blank (B097926-BLK1)					Prepared & Analyzed: 06/12/14						
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									L-03
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									
Methylene Chloride	ND	0.25									
Styrene	ND	0.025									
1,1,2,2-Tetrachloroethane	ND	0.025									
Tetrachloroethylene	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	ND	0.025									
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)	*7.87*				*8.00*		*98.4*	*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B097926 - TO-15 Prep												
LCS (B097926-BS1)					Prepared & Analyzed: 06/12/14							
Benzene	3.87				5.00		77.5		70-130			
Bromomethane	5.60				5.00		112		70-130			
Carbon Tetrachloride	5.32				5.00		106		70-130			
Chlorobenzene	4.58				5.00		91.7		70-130			
Chloroethane	6.05				5.00		121		70-130			
Chloroform	5.29				5.00		106		70-130			
Chloromethane	5.17				5.00		103		70-130			
1,2-Dibromoethane (EDB)	4.47				5.00		89.4		70-130			
1,2-Dichlorobenzene	5.12				5.00		102		70-130			
1,3-Dichlorobenzene	5.20				5.00		104		70-130			
1,4-Dichlorobenzene	5.13				5.00		103		70-130			
Dichlorodifluoromethane (Freon 12)	6.06				5.00		121		70-130			
1,1-Dichloroethane	4.68				5.00		93.5		70-130			
1,2-Dichloroethane	5.90				5.00		118		70-130			
1,1-Dichloroethylene	5.18				5.00		104		70-130			
cis-1,2-Dichloroethylene	4.72				5.00		94.4		70-130			
1,2-Dichloropropane	3.36				5.00		**67.2**	*	70-130			L-03
cis-1,3-Dichloropropene	4.50				5.00		90.1		70-130			
trans-1,3-Dichloropropene	4.89				5.00		97.8		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	5.49				5.00		110		70-130			
Ethylbenzene	4.90				5.00		98.0		70-130			
Hexachlorobutadiene	3.72				5.00		74.4		70-130			
Methylene Chloride	4.25				5.00		85.0		70-130			
Styrene	5.14				5.00		103		70-130			
1,1,2,2-Tetrachloroethane	4.00				5.00		80.0		70-130			
Tetrachloroethylene	4.86				5.00		97.2		70-130			
Toluene	4.66				5.00		93.2		70-130			
1,2,4-Trichlorobenzene	3.68				5.00		73.5		70-130			
1,1,1-Trichloroethane	5.01				5.00		100		70-130			
1,1,2-Trichloroethane	4.29				5.00		85.7		70-130			
Trichloroethylene	4.22				5.00		84.5		70-130			
Trichlorofluoromethane (Freon 11)	7.19				5.00		**144**	*	70-130			L-05, V-06
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.50				5.00		110		70-130			
1,2,4-Trimethylbenzene	5.22				5.00		104		70-130			
1,3,5-Trimethylbenzene	5.52				5.00		110		70-130			
Vinyl Chloride	5.95				5.00		119		70-130			
m&p-Xylene	10.6				10.0		106		70-130			
o-Xylene	5.06				5.00		101		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.54*				*8.00*		*107*		*70-130*			

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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
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
V-06	Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-14A in Air	
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

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

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 Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
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

con-test ANALYTICAL LABORATORY
www.contestlabs.com
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY RECORD

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

DOC#284
Rev. Feb 2014

14F0485

Company Name: ARCADIS
Address: 300 Metro Center Blvd, Warwick, RI 02886
Attention: Donna Pallister
Project Location: Springfield St, Providence, RI
Sampled By: A. DaSilva / A. Murphy

Telephone: 401-738-3887
Project #: WK012152.0009
Client PO #:

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☒WEBSITE CLIENT
Fax #:
Email: donna.pallister@arcadis-us.com
Format: ☒EXCEL ☒PDF ☐GIS KEY ☐OTHER

Proposal Provided? (For Billing purposes)
☐yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS: Total Minutes Sampled	Flow Rate M³/Min. or L/Min.	Volume Liters or M³	Matrix Code*	ANALYSIS REQUESTED: TO-14 VOCs				"Hg: Initial pressure	"Hg: Final pressure	"Hg: Lab Receipt pressure	Summa Canister ID	Flow Control ID
	MS Front	T	01	6/10/14	0900	—	—	—	SS	X				—	—	—	—	—
	ES #1	T	02	6/10/14	1500	—	—	—	SS	X				—	—	—	—	—
	ES #2	T	03	6/10/14	1505	—	—	—	SS	X				—	—	—	—	—

Please fill out completely, sign, dat and retain the yellow copy for your record

Summa canisters an flow controllers mus returned within 14 da of receipt or rental fe will apply.

For summa caniste and flow controller information please refer to Con-Test's Media Agreement.

Laboratory Comments:

CLIENT COMMENTS:

	Date/Time:
Relinquished by: (signature)	6/10/14 16:58
Received by: (signature)	6/11/14 945
Relinquished by: (signature)	6/11/14 5PM
Received by: (signature)	6/11/14 1740

Turnaround **
☐ 7-Day
☐ 10-Day
☒ Other STP
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

Special Requirements
Regulations:
Data Enhancement/RCP? ☐Y ☐N
Enhanced Data Package ☐Y ☐N
(Surchage Applies)
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 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. NELAC & AIHA-LAP, LLC Accredited/WBE/DBE Certified

Login Sample Receipt Checklist

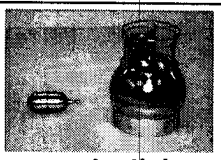
(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
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.	NA	
3) Samples were received on ice.	NA	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
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.	NA	
18) There is sufficient volume for all requsted 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	

Who notified of False statements? **Date/Time:**

Log-In Technician Initials: AB **Date/Time:** 6.11.14 17:44



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AIR Only Receipt Checklist

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

CLIENT NAME: Arcadis RECEIVED BY: PB DATE: 6·11·14

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: Air Lab

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		3	
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?

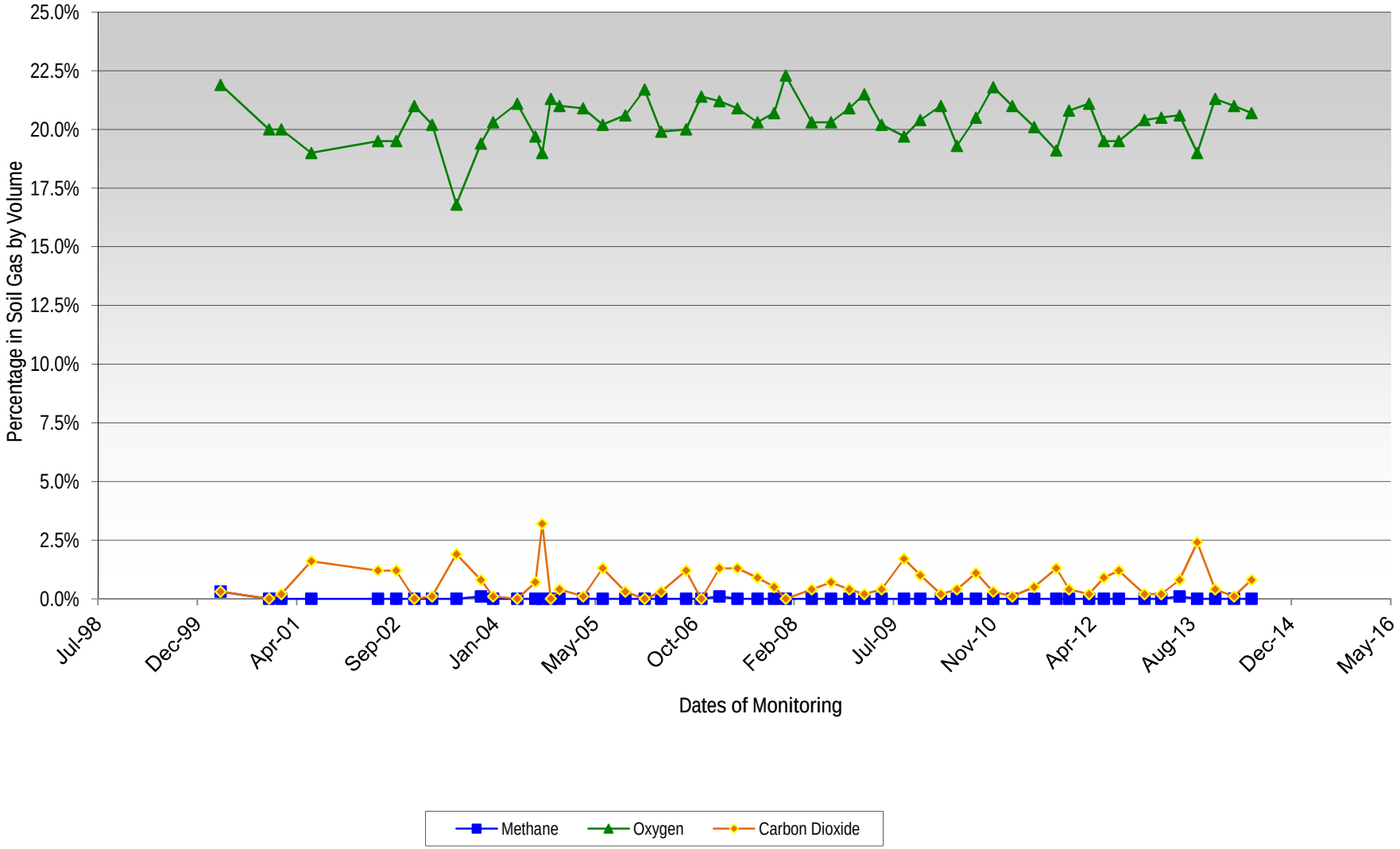
Laboratory Comments:

ARCADIS

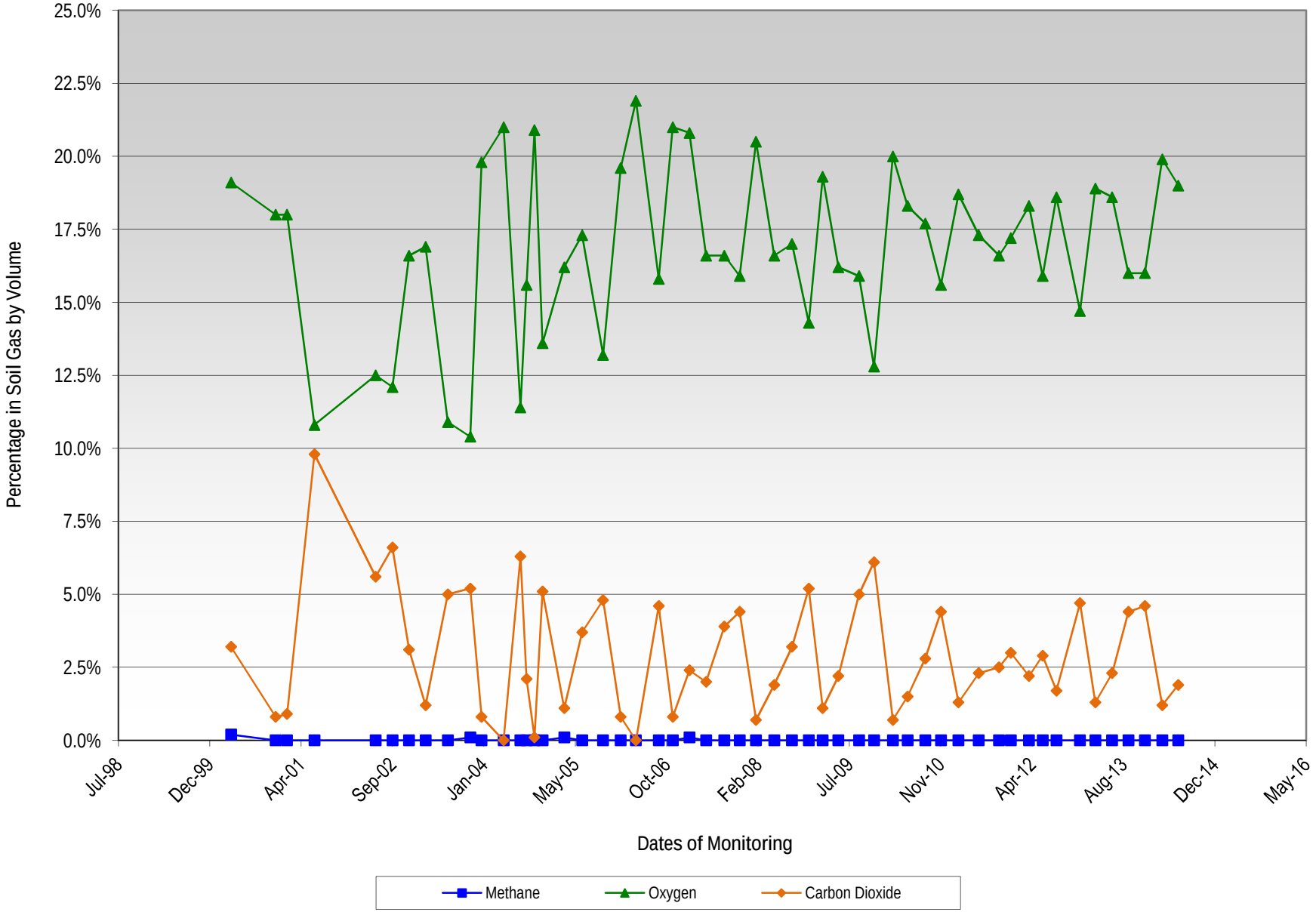
Appendix C

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

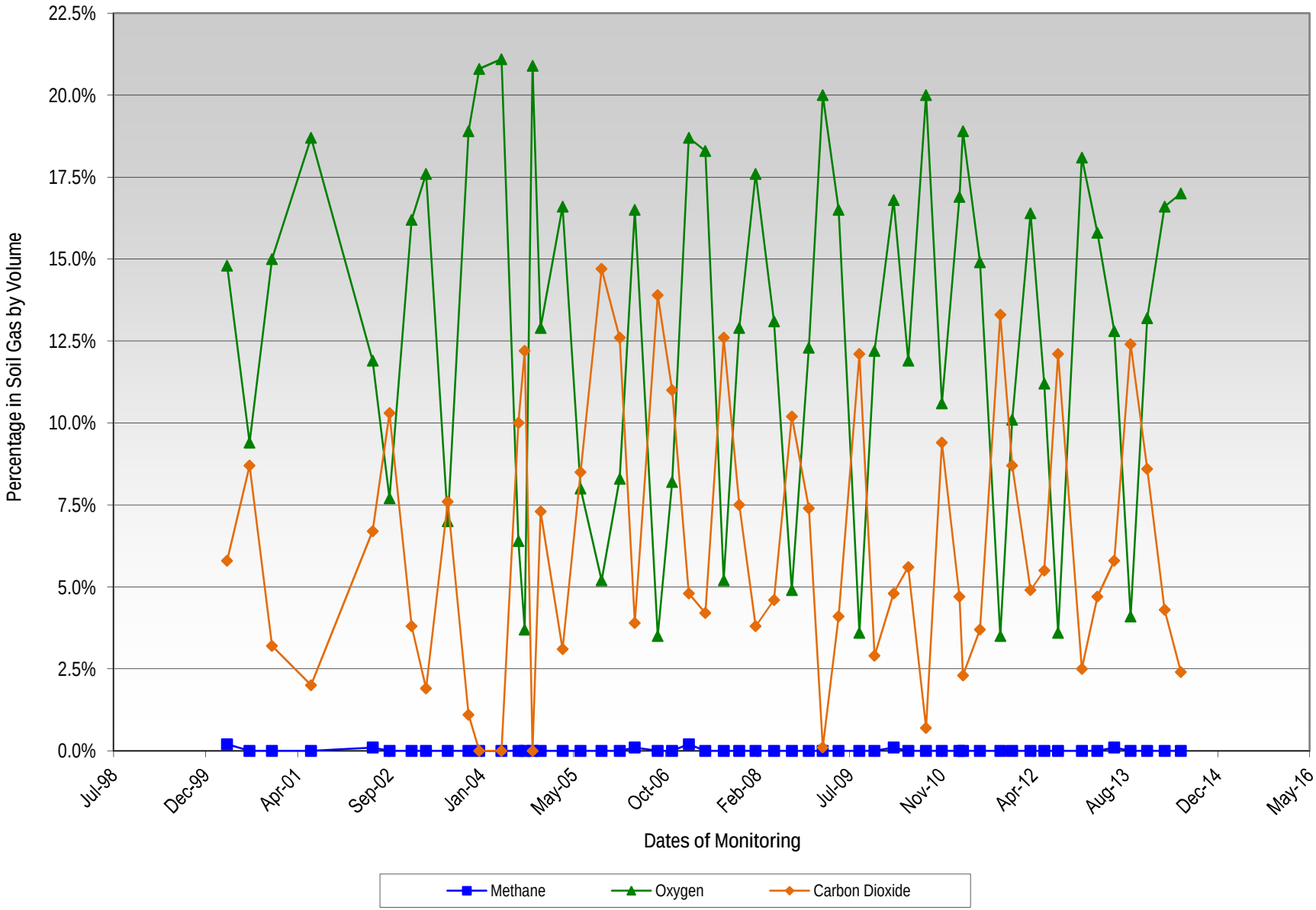


Soil Gas Well EPL4
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



H:\Active Jobs\081-12152\Monitoring Trends\Soil Gas Trends-6-2014 .xlsm\EPL4

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



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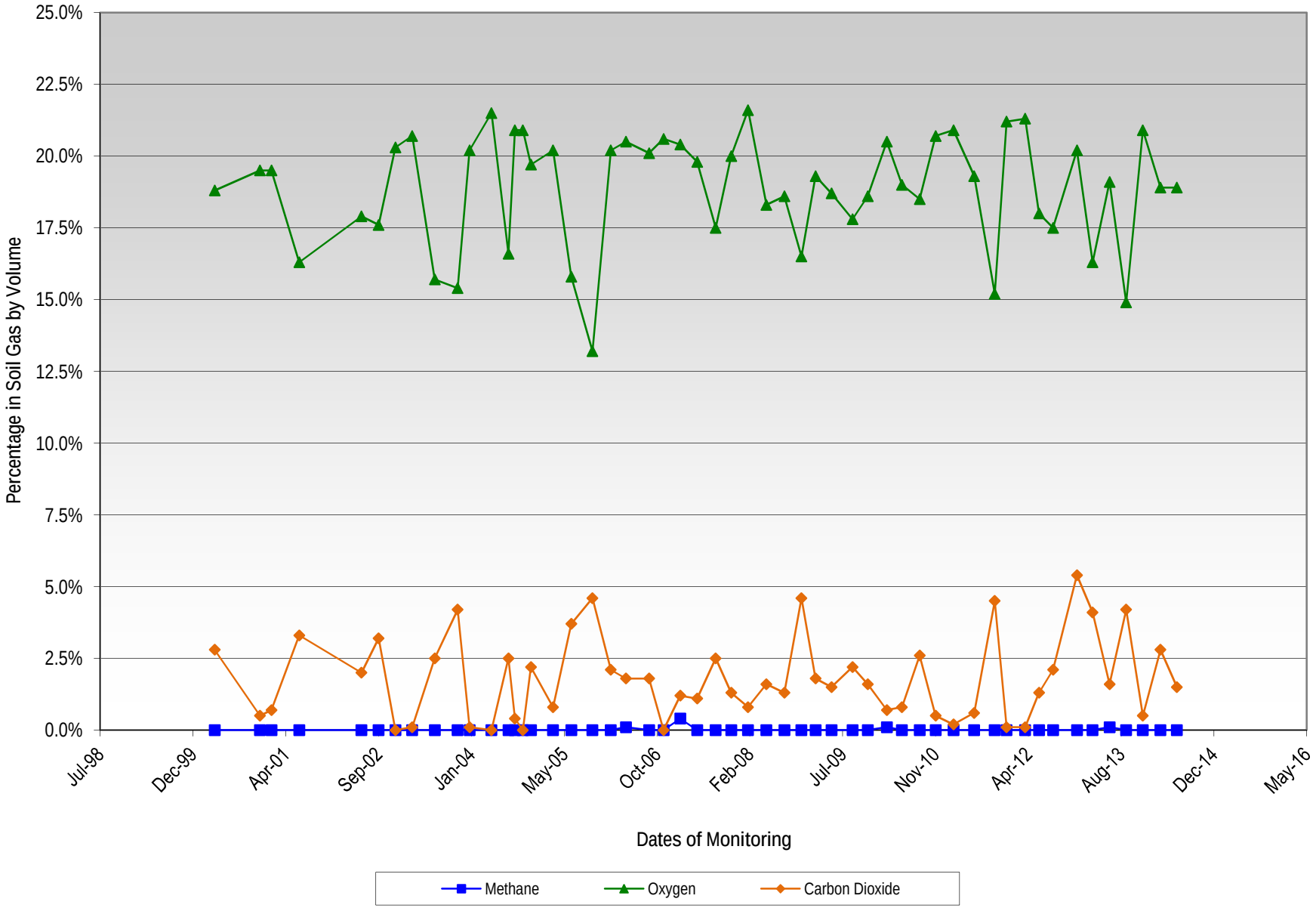
Soil Gas Well MG2
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



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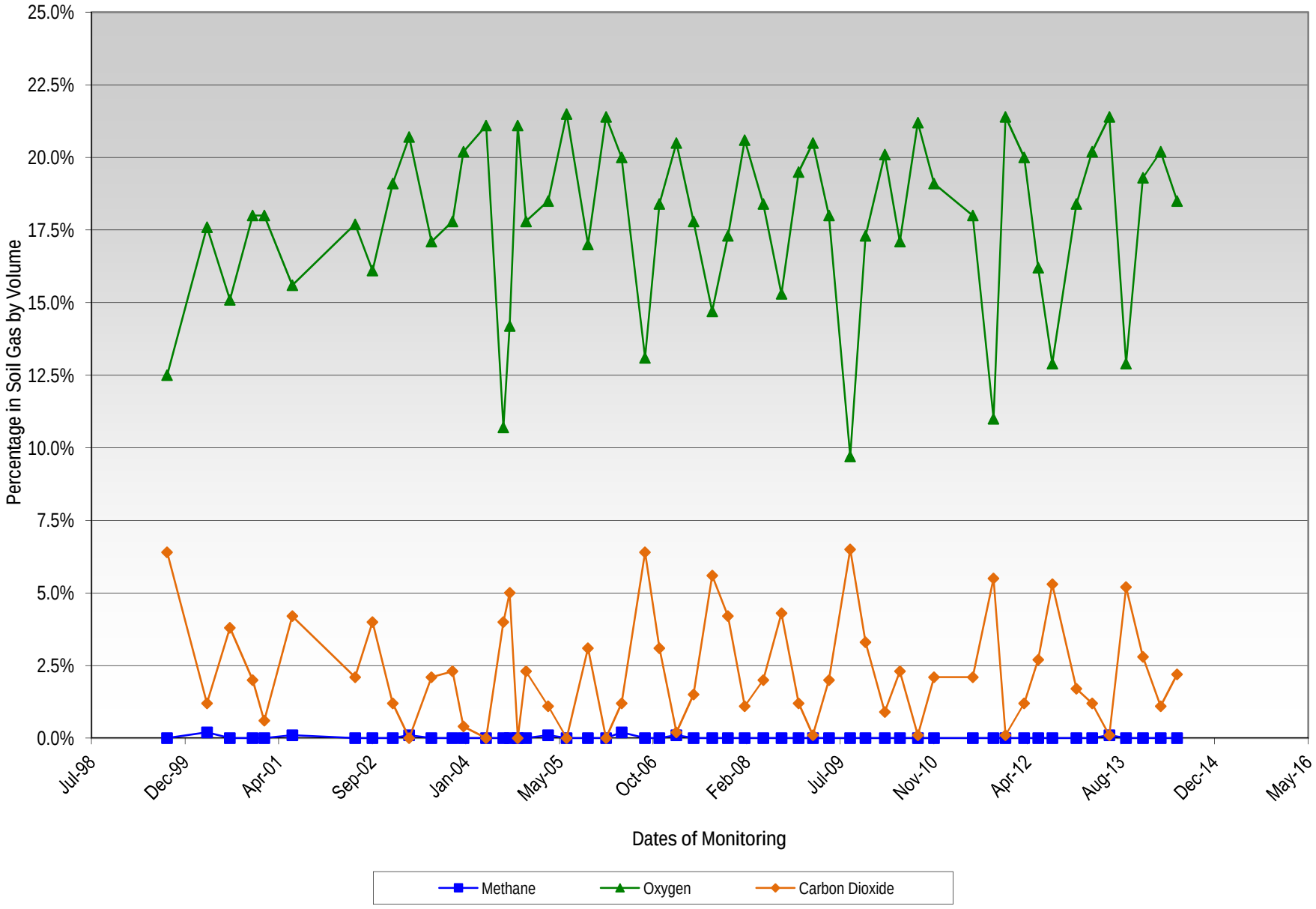
Soil Gas Well WB1
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



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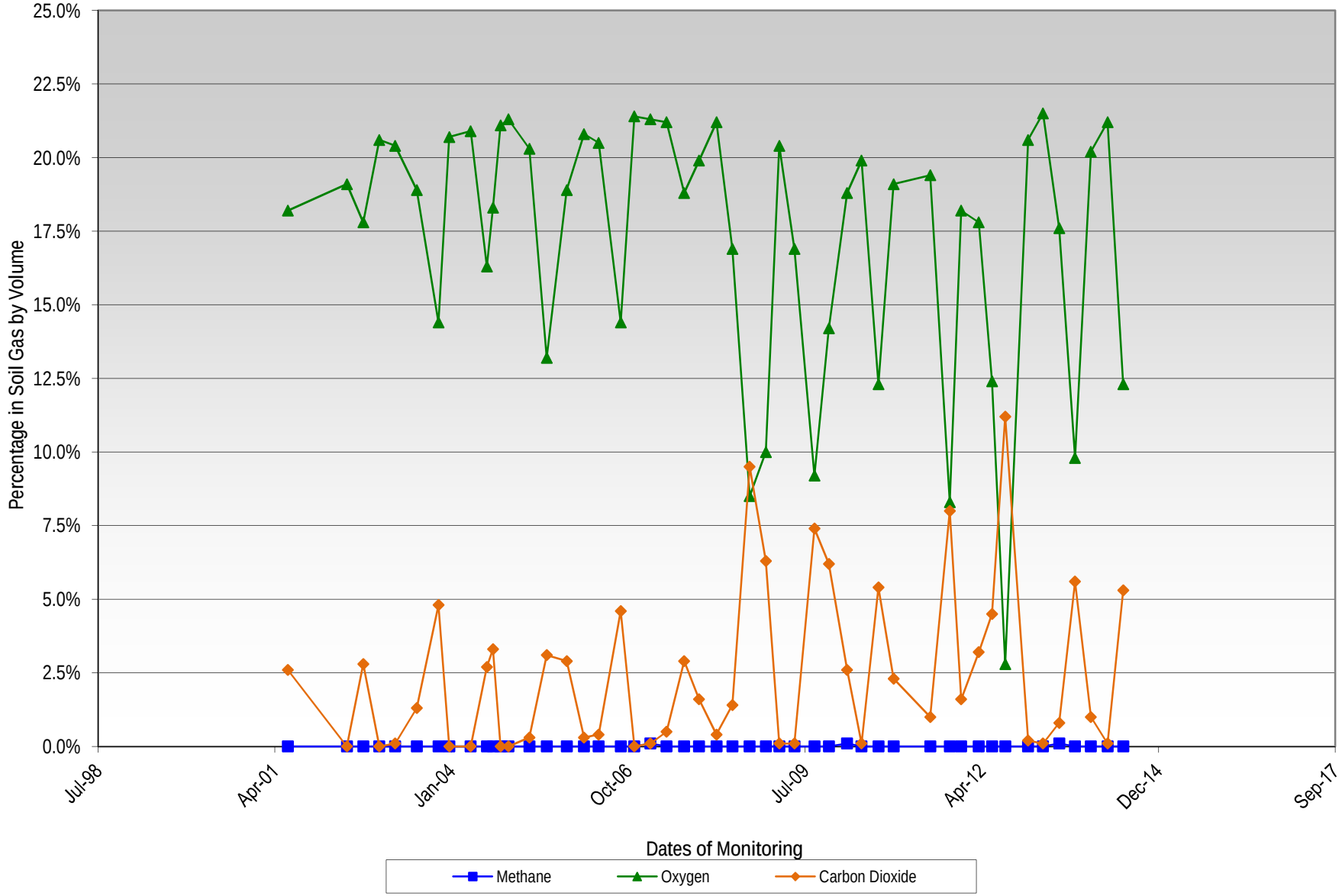
Soil Gas Well WB15
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



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